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COMPREHENSIVE STORM WATER EDUCATION & OUTREACH PLAN

A PLAN FOR EDUCATING THE PUBLIC AND THE CITY OF RIVERBANK'S INTERNAL STAFF ON STORM WATER POLLUTION PREVENTION AND PUBLIC INVOVLMENT OPPORTUNITIES

TABLE OF CONTENTS

CONTENTS

TABLE OF CONTENTS

APPENDICES:

LIST OF TABLES:

PUBLIC EDUCATION AND OUTREACH PROGRAM INTRODUCTION

1 PUBLIC EDUCATION AND OUTREACH PROGRAM INTRODUCTION

The City of Riverbank is subject to the State Water Resources Control Board's (SWRCB) National Pollution Discharge Elimination System (NPDES) Water Quality Order NO. 2013-0001-DWQ for Small Municipal Separate Storm Sewer Systems (Phase II MS4 Permit). As a result it is required to develop and implement a comprehensive education and outreach program. The purpose of this Comprehensive Storm Water Education and Outreach Plan is to effectively strategize and roadmap the implementation of the Education and Outreach Program requirements as described in Section E.7 of the Permit.

1.1 PUBLIC EDUCATION AND OUTREACH PLAN GOALS

Under the previous Phase II MS4 Permit, municipalities were required to perform general storm water outreach. The approach was very broad reaching and could be compared to a shotgun blast in which the goal was to reach as many as possible with a single outreach blast consisting of wide reaching messages such as "*only rain down the drain*". The current permit requires a much more targeted program in which, like a rifle bullet, precise messages are delivered to targeted audiences relating to specific water quality issues. The over-arching goal of this Comprehensive Education and Outreach (E&O) Program is to reduce pollutant discharges in storm water and non-storm water discharges and to measurably increase the knowledge and awareness of the targeted audiences concerning specific and relevant topics. This Plan will take the "SMART" approach[1] to each action-oriented E&O task by having a specific and relevant message that when performed the City of Riverbank can measure its time-focused results.

Specific

Measurable

Action-oriented

Relevant

Time-focused

The following are the goals of this E&O Plan:

1.1.1 Reduce Pollutants in Storm Water

After all … it is all about water quality. The main goal of the program is to make sure that pollutants and storm water do not mix. This E&O Plan identifies specific pollutants that the City of Riverbank is concerned about and are a priority for its storm water program. Section 2 of this Plan provides a description of these pollutants and the rationale for their inclusion into the E&O program.

Figure 1 - Volunteers inspect and inventory trash and pollutants removed from the receiving water during a Coastal Cleanup Day

[1] Getting in Step: A Guide for Conducting Watershed Outreach Campaigns, USEPA, December 2003, EPA 841-B-03-002

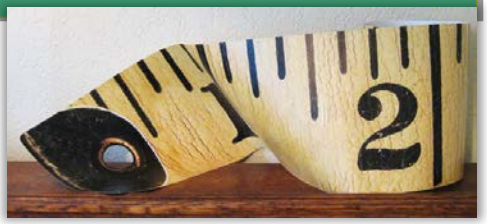
PUBLIC EDUCATION AND OUTREACH PROGRAM INTRODUCTION

1.1.2 Minimize Non-Storm Water Discharges

A primary goal, is still "*only rain down the drain*". This Plan identifies specific illicit discharge activities that it targets with appropriate and effective educational resources. The message is no longer delivered by "shot gun" but by a rifle shot towards specific activities.

Targeted Non-Storm Water Discharges:

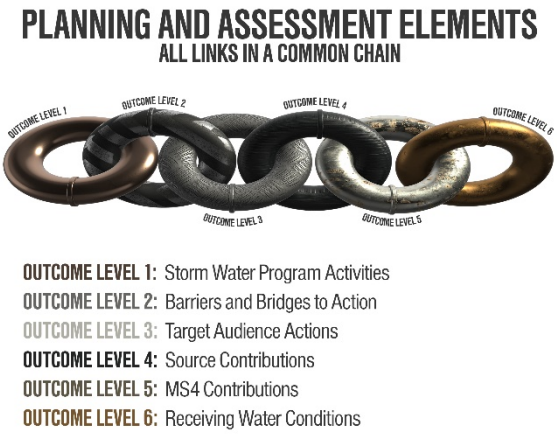
- Pressure washing operations
- Mobile commercial car washing and detailing
- Charity car washes
- Excessive flows from landscape irrigation.



1.1.3 Measurably Increase the Knowledge and Awareness of Targeted Audiences

A goal of this E&O Plan is to measurably increase the knowledge of targeted audiences regarding the following topics:

- The City of Riverbank's storm water drainage system;
- Impacts of urban runoff on local receiving waters; and
- Potential BMP solutions for activities that threaten water quality.



Measuring an increase in knowledge can be tricky business. Knowledge doesn't have any units of measurement, it can't be weighed on a scale, or through any other direct means of measurement. Therefore, it must be measured through indirect means such as improvements in water quality, changes in behavior, and other relational indicators that can be associated with increased knowledge of the targeted group. To do this, the Plan will utilize the performance and effectiveness evaluation system identified in the California Stormwater Quality Association's (CASQA) latest "*Municipal Stormwater Program Effectiveness Assessment Guidance*" document[2] which utilizes six different outcome levels to "measure" effectiveness, or in our case, the growth of knowledge. This is the same approach that is taken in a more broad evaluation of the storm water program through the Phase II MS4 Permit's requirement (Section E.14) to perform a Program Effectiveness Assessment and Improvement Evaluation.

[2] At the time of this version of the E&O Plan, the latest published CASQA guidance is their "Municipal Stormwater Program Effectiveness Assessment Guidance," (May 2007). However, CASQA is expecting to release their new guidance document in the Spring of 2015. The depicted chain graphic showing the six outcome levels is based on their new approach.

PUBLIC EDUCATION AND OUTREACH PROGRAM INTRODUCTION

1.2 ORGANIZATION OF THE PLAN

This E&O Plan has been prepared as part of a collaborative effort of over 15 Central Valley Phase II MS4s. A collaborative approach to creating the core E&O Plan template was selected because there are many commonalities among the Central Valley Phase II MS4s regarding targeted pollutants of concern, activities, and audiences. Although the approach of implementing the E&O program will most likely vary from municipality to municipality, there is sufficient common ground to allow for a base template to be created, modified, and populated with specific implementation tasks by each participating municipality. This Plan has been formatted in such a way that allows each participating municipality to populate it with information about the targets and tasks that are unique to them. It has been organized to walk each participating municipality through the following nine steps.

In Section 2 of the E&O Plan:

Step 1 - Identify water quality problems;

Step 2 - Identify target audiences;

Step 3 - Identify the baseline of knowledge and awareness of the target audience;

Step 4 – Identify and prioritize the messages;

In Section 3 of the E&O Plan:

Step 5 – Inventory existing resources;

In Section 4 of the E&O Plan:

Step 6 – Detail how the E&O tasks required by the Phase II MS4 Permit in section E.7.a.ii. (b) – (m) will be accomplished;

Step 7 - Identify who is responsible for implementing each task;

Step 8 - Identifying the schedule for task implementation; and

Step 9 – Identify the process for evaluating anticipated task effectiveness.

2 SELECTING THE TARGET

In this section of the E&O Plan, we will hone in on our target and do some calibrating of the E&O "gun sights". Specifically, we will identify the water quality problems that surface waters in or around the City of Riverbank may be experiencing. Next, we will identify audiences that should be targeted based, not only on our findings concerning water quality problems, but also on where surface water drains, activities that occur within the MS4, and historic problems. We will also look at the audience itself and see if we can discern a little about who they are, such as, gender, age group, what they do, where they live and work, and languages. After the audiences are identified, we will attempt to determine the baseline of knowledge and awareness that they have about the subjects of concern and select ways to monitor that level of knowledge, specifically through surveys. Taking all of the above information into consideration, we will then select the messages that need to be conveyed to protect water quality and identify to whom these messages should be directed.

2.1 IDENTIFICATION OF WATER QUALITY PROBLEMS

The Permit requires municipalities to base the outreach and education messages on local water quality concerns. Although the municipalities collaborating with this E&O Plan share many of the same water quality issues such as Total Maximum Daily Loads and 303d listed constituents, each municipality most likely has a unique blend of water quality issues based on regional activities, types of receiving water bodies, topography, and demographics. In the following subsections, the City of Riverbank has itemize the water quality problems that are potentially threatening local surface waters.

2.1.1 TMDLs / 303d Listed Constituents

One of the first places to check for water quality concerns is with the State Water Board. What do they consider to be a problem or a potential problem for the surface waters local to the City of Riverbank? These concerns are called "impairments" and are identified on the Clean Water Act-required 303d list and through the TMDL process (refer to the side bar for more information). For Phase II MS4s, the State Water Board has provided a list of TMDLs that apply to them in Appendix G of the Permit. Table 1 provides a list of TMDLs that apply to the City of Riverbank. Table 2

TMDLs and 303d Lists?
What are they and how do they apply to my E&O program? TMDL stands for Total Maximum Daily Load and it is an outcome of the Federal Clean Water Act. The Clean Water Act requires each State to identify all of the water bodies (including streams, creeks, rivers, lakes, bays, etc.) within the State. Then, each State is required to identify all of the beneficial uses of the water bodies they have identified, which can include drinking water, agriculture irrigation water, recreation, and biological uses such as cold, spawn, or migratory. The next step in the process is to identify all of the impairments that are hindering one or more of the water body's beneficial uses. These impairments may be a physical condition such as low dissolved oxygen, pH, or temperature; or they can include toxic impairments such as mercury, pesticides, or pathogens. The impairments are recorded on what is called the "303d List," referring to the section of the Clean Water Act where such a listing is required. The next step is to determine the maximum amount of each impairment the water body can assimilate on a daily basis without jeopardizing any of its beneficial uses – the total maximum daily load or TMDL. Once the TMDL has been established by the State's Water Board, the daily allowed pollutant load is then divided up among the stakeholders. The term "stakeholders" refers to every entity that discharges to the water body, including NPDES permit holders (municipalities, industrial facilities, and construction sites); and other entities, such as agricultural operations. Each stakeholder's "slice of the TMDL pie" is called a waste load allocation (WLA) and is typically expressed as a concentration.

lists, by watershed, the 303d impairments that affect local receiving waters.

TABLE 1 – TMDLS THAT APPLY TO THE CITY OF RIVERBANK PER ATTACHMENT G

Constituent or Condition	Water Bodies Affected
Diazinon & Chlorpyrifos (Pesticides)	Lower San Joaquin River
Organic Enrichment and Low Dissolved Oxygen	Lower San Joaquin River

TABLE 2 – 303D LISTED CONSTITUENTS OF CONCERN

Watershed	Constituents and/or Conditions
Lower San Joaquin River and Tributaries	Mercury, Pesticides, Exotic Species

Diazinon, Chlorpyrifos, and Other Pesticides – These are pesticides that have been used historically in residential, commercial, and agricultural applications. Diazinon is an organophosphate insecticide formerly used to control cockroaches, silverfish, ants, and fleas. It has been restricted from being retailed to residential users for more than 10 years. It is still allowed for certain agricultural and cattle applications. Diazinon released into the environment is moderately persistent and moderately mobile. Studies of diazinon applied to several soil types show that it is not likely to adsorb to soil particles. One study looked at 25 soils and found diazinon to be mobile in 80% of the soils tested, while another study found diazinon leached more in light-textured soils with low organic matter content. Diazinon was the most frequently detected insecticide in surface waters prior to the phase-out of urban uses in 2004. Since that time, diazinon concentrations have declined in 90% of sampled streams in the midwestern and northeastern United States, many showing declines of 50% or more during the summer months.[3] Chlorpyrifos is also an organophosphate insecticide and has many of the same application uses and characteristics of Diazinon.[4] However, it is not restricted for residential use and can be found in many common insecticide products. To search for products available in California use the following link to the California Department of Pesticide Regulation and enter the name "chlorpyrifos" and 253 for the chemical code: www.cdpr.ca.gov/docs/label/chemcode.htm. The target groups are the users of these chemicals and construction operations that disturb soils and expose historically applied pesticides to storm water runoff.

Exotic Species – These are non-native invasive plant or animal species that are introduced to the water body from outside sources such as the Water Hyacinth and the Quagga Mussel[5]. The target groups are boating and maritime users; and residential fish tank and pond owners.

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[3] National Pesticide Information Center's Diazinon Technical Fact Sheet http://npic.orst.edu/factsheets/diazinontech.pdf

[4] National Pesticide Information Center's Chlorpyrifos Technical Fact Sheet http://npic.orst.edu/factsheets/chlorptech.pdf

[5] Invasive Species Council of California www.iscc.ca.gov/publications/ISCC_Invasives_Poster_061510.pdf

SELECTING THE TARGET

Organic Enrichment & Low Dissolved Oxygen – This is more of a water quality condition than a specific pollutant. However, a variety of pollutants can cause this condition. Living organisms need oxygen to breath. This is also true of organisms that live in water – they need dissolved oxygen. When oxygen levels in water drop these organisms suffer. Many times large fish kills are due to a lack of dissolved oxygen or DO. It is not usually because there is no oxygen available, but typically the oxygen is being "stolen" before it gets to the fish. This robbery happens through chemical and biological processes. Decaying organic matter will rob or "demand" oxygen from the water through bacteria degradation processes. Organic matter can be "pollutants" as seemingly harmless as leaves, cut grass, and aquatic vegetation. It can also be from sugar or other manmade and natural chemicals. Nutrients such as fertilizers can also cause an elevated demand for oxygen. High nutrient levels cause a spike in the growth of vegetation and the decay of organic material, both of which need lots of oxygen. So how do we know if a water body has a problem? We look for visible signs such as fish kills, excessive vegetation, algal blooms, and floating organic debris. We also test for water quality conditions such as dissolved oxygen, temperature, and the actual demand for oxygen by two different testing methods: Biological Oxygen Demand (BOD) or Chemical Oxygen Demand (COD). We can also analyze water samples for pollutants such as ammonia, phosphate, nitrate, or other suspected industrial chemicals that have the potential to be present. Target groups are those parties that may expose grass cuttings, leaves, or fertilizers to storm water runoff that enters the municipal drainage system (i.e. residential, landscape contractors, and municipal landscape crews).

Mercury & Methylmercury – Have you ever noticed warnings posted at docks and fishing piers about not eating large amounts of fish that were caught there? These warning signs are becoming increasingly more prevalent. This is due largely from methylmercury which is formed from inorganic mercury through a natural process of anaerobic organisms that live in aquatic environments including lakes, rivers, the California Delta, sloughs, retention basins, sediments, and soils. It can form just about anywhere there is decaying vegetation and slow water. Because Central Valley municipalities are predominately in or downstream of Gold Country, they have the likelihood of having methylmercury present. During the years of the Gold Rush, hopeful miners collectively used elemental inorganic mercury by the tons to extract gold. Much of this inorganic mercury was lost to the environment during the process. Since water flows downhill, much of that mercury has ended up in the waterways of the Central Valley and in the California Delta where it sits and slowly converts to methylmercury. There are other sources of mercury today that can add to the accumulative problem. These sources include e-waste, florescent light tubes and high density discharge lamps (such as mercury vapor lamps), older thermostats and switches, and other electronic equipment. Methylmercury is a "bio-accumulative", meaning that it never really goes away and that it accumulates in the new host. For example, if it is in microscopic organisms that are ingested by fish, which in turn get ingested by a bird or a human – it carries through the various hosts and accumulates in the tissues of the final host. Target reducing the introduction of additional inorganic mercury into the environment by controlling how mercury containing items are disposed of and promoting the replacement of these items with mercury-free alternatives.

Pathogens – These include any agent, especially a microorganism (e.g. viruses or bacteria), able to cause disease. It can come from a wide variety of sources including residential, agricultural, industrial, and natural causes. E&O efforts for possible municipal sources should target pet waste, proper sanitation facilities and facility maintenance, and residential and commercial causes of sanitary sewer overflows.

Temperature – In a municipal setting this condition consisting of increasing the receiving water temperature above normal natural levels is typically caused by the discharge of cooling water and industrial process water to the surface water. Target group is industrial and port facilities.

Toxic Chemicals (Dioxin, Furans, and PCBs) – These pollutants tend to be found in the parts of the watershed that have a heavier industrial presence or historic industrial activity such as the Deep Water Ship Channel in Stockton. Many of these chemicals are present in sediments from historic activities and the subsequent settling of pollutants. Dredging activity can re-introduce them to the water column. Target group industrial and port facilities.

TABLE 3 – SUMMARY OF THE CITY OF RIVERBANK'S TMDL / 303D-BASED MESSAGES

Messages:
Diazinon, Chlorpyrifos, and Other Pesticides: Use alternative Integrated Pesticide Management (IPM) methods and best practices when using pesticides.
Exotic Species: Follow best practices for boat cleaning[6] and about proper maintenance practices for fish tanks and ponds.
Organic Enrichment & Low Dissolved Oxygen: Do not blow grass cuttings and leaves into the street and gutter, use natural compost rather than commercial fertilizers, and follow best practices when applying fertilizer.
Mercury & Methylmercury: No illegal dumping. Use proper e-waste disposal, and select reduced-mercury or mercury-free alternatives.
Pathogens: Clean up and proper disposal of pet wastes; secure and properly maintain portable sanitary facilities; and Fats, Oils, and Grease (FOG) program education.
Temperature: Procure proper environmental permits prior to discharging wastewater or cooling water; and comply with the State Water Board's Industrial General Permit.
Toxic Chemicals (Dioxin, Furans, and PCBs): Procure proper environmental permits prior to in-water work and comply with the State Water Board's Industrial General Permit.

2.1.2 Illicit Discharges and Connections

Another target for the E&O program are illicit discharges. Remember the motto "*only rain down the drain*". So we will need to identify **common sources** of unauthorized non-storm water discharges in the City of Riverbank. What is unauthorized? Well, it is easier to identify what is authorized because it is listed in the Phase II MS4 Permit. Authorized non-storm water discharges include the following:

[6] www.dbw.ca.gov/BoaterInfo/CleaningProcedures.aspx

- ✓ water line flushing;
- ✓ ***individual residential*** car washing;
- ✓ diverted stream flows;
- ✓ rising ground waters;
- ✓ uncontaminated ground water infiltration (as defined at 40 C.F.R. §35.2005(20)) to separate storm sewers;
- ✓ uncontaminated pumped ground water;
- ✓ discharges from potable water sources;
- ✓ foundation drains;
- ✓ air conditioning condensation;
- ✓ springs;
- ✓ water from crawl space pumps;
- ✓ footing drains;
- ✓ flows from riparian habitats and wetlands;
- ✓ flow from fire-fighting activities;
- ✓ ***de-chlorinated*** swimming pool discharges; and
- ✓ incidental runoff from landscaped areas.

One new discharge prohibition in the Phase II MS4 Permit concerns excessive runoff from landscaped areas. Technically, it is defined in the Permit as ***discharges in excess of incidental runoff***. Incidental runoff is defined as unintended amounts of runoff such as minimal over-spray from sprinklers that escapes the area of intended use. Irrigation water leaving an intended use area is considered excessive if it is due to excessive application, intentional overflow or application, or negligence. This is a common issue in just about every municipality and, especially with the importance of drought-conscious water conservation, it is a key target for the E&O Plan. E&O messages should include water conservation methods and equipment, complying with the City of Riverbank's municipal code about irrigation and water conservation, and about proper maintenance of irrigation systems.

Other illicit discharge E&O will be directed towards common sources of municipal non-storm water discharges as identified in Table 4.

TABLE 4 – COMMON SOURCES OF ILLICIT DISCHARGES IN THE CITY OF RIVERBANK

Type of Discharge	Targeted Audience	Message
Washing of business exterior surfaces and paved areas	Business owners and operators	Use dry cleaning methods or, when washing must be done, find a way to keep flows from going into a storm drain.
Washing of floor mats and equipment	Restaurant owners and operators	Wash mats in a way to keep flows from going into a storm drain by washing them on a permeable surface, in an area that drains to the sanitary sewer system, or at a self-serve car wash facility.

Type of Discharge	Targeted Audience	Message
Car washing that is not by an individual residential occupant	Mobile detailers and car washing operations; New or used car lots; charitable car washes	Wash water from car washing is not allowed to go into the storm drain. Possible options include using a commercial car wash facility; diverting flows to a permeable area; or washing cars so that water is discharged to the sanitary sewer. Permission by the municipality may be needed prior to discharging to the sanitary sewer.
Liquids from Trash Bins, Containers, or Outdoor Waste Compactors	Commercial businesses and restaurants.	Cover and contain trash bins and waste compactors. Segregate wastewater from storm water and direct collected wastewater to the sanitary sewer system. Permission by the municipality may be needed prior to discharging to the sanitary sewer.
Dumping janitorial mop-buckets and other janitorial and carpet cleaning wastewater	Business owners and operators; janitorial contractors; carpet cleaning contractors	Dump janitorial mop water and carpet cleaning water into the sanitary sewer.
Illicit connection of interior floor drains	Business owners and operators	Confirm that interior floor drains are not connected to the storm sewer system. Educate on tests that can be performed by the business owner to check for illicit connections.
Illegal dumping	Residents or businesses in the areas of the municipality in which dumping occurs most often	Educate about where storm drains discharge and that there is no treatment before water discharges. Educate about the fines and possible imprisonment for illegal dumping. Provide education on cost-effective alternatives for the disposal of used oil, chemicals, and paint.

2.1.3 Sanitary Sewer Overflows

Overflows from sanitary sewers that flow into the City of Riverbank's storm drainage system are actually a type of illicit discharge. But, for this unauthorized discharge we approach it in a slightly different manner. In this case, for the most part, residents and businesses in the City of Riverbank do not directly cause sanitary sewer overflows (SSOs); but, it is their actions that can indirectly cause SSOs. This is definitely an area for education, because most residents and businesses are completely clueless about the connection of what they dump down an interior drain and storm water quality. After all, aren't they two different sewer systems? This is where the municipality's Fats, Oil, and Grease (FOG) program comes into play. Most SSOs are due to the clogging of sanitary sewer lines causing a back-up of the system, which will usually surface at a manhole and then surface flow to a nearby storm drain. It is not a pretty situation and exposes not only fats and oils to the storm water runoff and local receiving water but also pathogens, nutrients, toxic substances, and material that is high in BOD. E&O efforts will target areas of Riverbank where there has been residential or commercial causes of sanitary sewer overflows. Table 5 provides an itemization of SSOs that have occurred in the last 2 years in the City of Riverbank.

TABLE 5 – COMMON SOURCES OF SSO IN THE CITY OF RIVERBANK

List SSOs that have occurred in the last two years	Area of the Municipality in which the SSO occurred	Type of sanitary sewer users in the area of the SSO
Lift Station Transducer Failure	Virginia Avenue	Residential
Lift Station Transducer Failure	Engstrom Drive	Residential
Lift Station Power Outage	Falcon Ridge Drive	Residential
Fats, Oil, Grease (FOG)	Sierra Avenue	Residential

E&O messages for residents will center on not dumping fats, oils and greases down the drain; and for restaurants and businesses in using proper grease collection systems and regularly maintaining those systems.

TABLE 6 – SUMMARY OF SSO AND FOG MESSAGES

Messages:
Residents and Businesses: Do not dump fats, oils and greases down the drain.
Businesses: Use proper grease collection systems and regularly maintain those systems.

2.1.4 Trash

Up to this point, the water quality problems that we have been discussing in this Plan have been water body specific or regional; however, there is a water quality problem that poses a State-wide threat – trash. We all see it and some of its unsightly effects when we visit the beach, an estuary, river, lake or other favorite water recreational resources. But the damage is not limited to visual effects. Studies have shown that trash presents a real threat to public health and to the health of organisms that depend upon aquatic and marine ecosystems. Trash has become a primary target of the State Water Board's public education and outreach program[7] as demonstrated by the video link shown in Figure 2. The messages are especially appropriate for school-age children to educate the next generation about the importance of not littering and keeping trash out of the storm drainage system.

Figure 2 - State Water Board's video on the impact of trash on water quality
http://youtu.be/KrdXSvb1Af8

[7] To learn more about the State Water Board's trash program, go to www.waterboards.ca.gov/water_issues/programs/trash_control/

SELECTING THE TARGET

TABLE 7 – SUMMARY OF TRASH & LITTER POLLUTION PREVENTION MESSAGES

Messages:
Keep Streets, Neighborhoods and Parks Trash Free.

2.2 IDENTIFICATION OF TARGET AUDIENCES

Now that the water quality problems for Riverbank have been established, the next step is to identify who are the target audiences for these problems. The target audience is the group of people you want to reach with your messages. Target audiences may sometimes be obvious, while other target groups may require some research to determine who exactly would benefit most from the message that is attempting to be conveyed. Remember, we are wanting to direct a "bullet" of education to a specific target that has impact and not a "spray" of less impactful messages hoping to hit a target. If the target audience is too broad, the targeted message may not be effective on the intended target.

Targeted audiences can be segmented by a variety of distinctive characteristics including geographical locations, demographics, and activities or business types.

2.2.1 Geographic Locations

For some pollutants of concern, it makes sense to target an audience by geographical location. This is particularly true for issues that involve illicit discharges, illegal dumping, SSOs, and pollutants that can be attributed to a certain geographical area of the municipality. During Year 2 of the Phase II MS4 Permit, municipalities were required to develop an outfall map which identified "*priority drainage areas*" that included older infrastructures, industrial/commercial (mixed use) areas, a past history of illicit discharges or dumping, areas with onsite sewage disposal systems, or areas that are likely to have illicit discharges. These regional areas, businesses, activities, and communities should be targeted with the messages identified on Tables 3, 4 and 6. In Table 8, identify geographical areas within the City of Riverbank that are particularly applicable to the listed water quality concerns.

TABLE 8 – GEOGRAPHICAL AUDIENCES

Water Quality Concern	Neighborhood, Tract, or Area of the Municipality from where the Water Quality Concern Originates
Pesticides *(areas of residential, commercial, and/or municipal use)*	Citywide
Exotic species *(typically residential)*	Citywide
Organic enrichment / low dissolved oxygen *(areas from where organic debris originates or where fertilizers may be applied; may also apply to certain industrial sectors of the municipality)*	Citywide
Mercury *(this is not typically a geographical-specific issue)*	Citywide
Pathogens *(areas where there is frequent pet waste; may also apply to certain industrial sectors of the municipality)*	Citywide
Toxic chemicals *(may apply to certain industrial sectors of the municipality)*	Citywide
Illicit discharges *(areas where there has been a history of illicit discharges or dumping issues)*	Citywide

Sanitary Sewer Overflows *(areas where there has been a history of SSOs or areas where the sanitary sewer systems requires frequent maintenance for FOG issues; typically areas with high concentration of residential and restaurants)*	Citywide
Trash *(this is not typically a geographical-specific issue; unless trash capture devices show a higher amount of trash loading for a particular geographical area)*	Citywide

2.2.2 Demographics

For some pollutants of concern, the appropriate audience target is based on one or more demographic characteristics. These characteristics include such things as ethnicity, gender, age, income, recreational activities, organizational affiliations, or land use types (e.g., industrial, residential, commercial, open space). Knowing and understanding the demographics of a municipality will get the desired messages effectively delivered to the right audience. For example, if the pollutants of concern include pesticides and fertilizers, we would most likely not have immediate results if messages about these pollutants are delivered to school-age children. Although there may be a long-term benefit by telling school children about these pollutants, we would probably get a much greater immediate benefit by targeting homeowners and landscape maintenance contractors. Further demographic research can then be done to determine the gender and age of homeowners who tend to buy and apply landscape maintenance chemicals and the primary languages spoken by the landscape maintenance contractors. Now, it should be noted that when we are looking at demographics we are not making a judgment about any certain group or a "blanket statement". We are only looking at trends – there will certainly be exceptions and anomalies to these observed trends. Think of it this way … you only have so much money and time to spend on education about a particular water quality concern. Where can you spend it in a way that will give you the greatest impact? You might not hit everyone with your message, but you will hit many of the more likely applicable recipients using demographic knowledge.

Demography *noun* \di-ˈmä-grə-fē\
The study of changes (such as the number of births, deaths, marriages, and illnesses) that occur over a period of time in human populations; also a set of such changes; the statistical study of human populations especially with reference to size and density, distribution, and vital statistics.

Source: www.merriam-webster.com/

Another aspect to evaluating demographics is to identify the way that a particular group receives messages. We would not want to primarily communicate a message through the City of Riverbank's website to a group that tends to rarely go online. We want to identify media to which the demographic-based group tends to have exposure. We also want to look at places the targeted demographic group frequents; such as homeowners who go to home improvement centers, nurseries, or hardware stores to buy their landscape maintenance chemicals. If we were targeting this group, it might be effective to see if we could disseminate educational materials at these types of retail businesses.

Table 9 identifies water quality concerns and, where possible, associates them with one or more demographic-based groups.

SELECTING THE TARGET

TABLE 9 – DEMOGRAPHIC-BASED AUDIENCES

Water Quality Concern	Demographic-Based Groups likely to Use, Apply, or Discharge the Pollutant of Concern	Effective Ways to Convey Messages to the Targeted Group
Pesticides		*Media of choice:* ***Written, Social Media, City Website*** *Locations to disseminate information:* ***Citywide*** *Common language groups:* ***English & Spanish***
Exotic species		*Media of choice:* ***Written, Social Media, City Website*** *Locations to disseminate information:* ***Citywide*** *Common language groups:* ***English & Spanish***
Organic enrichment / low dissolved oxygen		*Media of choice:* ***Written, Social Media, City Website*** *Locations to disseminate information:* ***Citywide*** *Common language groups:* ***English & Spanish***
Mercury		*Media of choice:* ***Written, Social Media, City Website*** *Locations to disseminate information:* ***Citywide*** *Common language groups:* ***English & Spanish***
Pathogens		*Media of choice:* ***Written, Social Media, City Website*** *Locations to disseminate information:* ***Citywide*** *Common language groups:* ***English & Spanish***

Water Quality Concern	Demographic-Based Groups likely to Use, Apply, or Discharge the Pollutant of Concern	Effective Ways to Convey Messages to the Targeted Group
Toxic chemicals		*Media of choice:* ***Written, Social Media, City Website*** *Locations to disseminate information:* ***Citywide*** *Common language groups:* ***English & Spanish***
Illicit discharges		*Media of choice:* ***Written, Social Media, City Website*** *Locations to disseminate information:* ***Citywide*** *Common language groups:* ***English & Spanish***
Sanitary Sewer Overflows		*Media of choice:* ***Written, Social Media, City Website*** *Locations to disseminate information:* ***Citywide*** *Common language groups:* ***English & Spanish***
Trash		*Media of choice:* ***Written, Social Media, City Website*** *Locations to disseminate information:* ***Citywide*** *Common language groups:* ***English & Spanish***

2.2.3 Activities and Business Types

Targeted audiences many times are based on what they inherently do. For example, pest control contractors use pesticides; power washing operations have non-storm water runoff; and charity car washes produce not only sign-waving participants but also sudsy water. The Phase II MS4 permit requires that the City of Riverbank reach out to certain activities and businesses which are included on Table 10 and designated as a "mandated audience". Other businesses and groups have been added to Table 10 by the City of Riverbank based on their potential to expose targeted pollutants of concern to storm water runoff.

SELECTING THE TARGET

TABLE 10 – ACTIVITY OR BUSINESS-BASED AUDIENCES

Activity or Business likely to Use, Apply, or Discharge the Pollutant of Concern	Pollutants of Concern	Effective Ways to Convey Messages to the Targeted Group
Organized Car Washes *(Permit mandated)*	Illicit discharges Soaps, detergents, and other substances that may demand oxygen or affect the pH of the receiving water	*Media of choice:* ***Written, Social Media, City Website*** *Locations to disseminate information:* ***Citywide, Non-Profits*** *Common language groups:* ***English & Spanish***
Mobile Cleaning and Pressure Washing Operations *(Permit mandated)*	Illicit discharges Soaps, detergents, and other substances that may demand oxygen or affect the pH of the receiving water	*Media of choice:* ***Written, Social Media, City Website*** *Locations to disseminate information:* ***Citywide, Businesses*** *Common language groups:* ***English & Spanish***
Landscape Irrigation *(Permit mandated)*	Illicit discharges	*Media of choice:* ***Written, Social Media, City Website*** *Locations to disseminate information:* ***Citywide, Businesses, Landscape Companies, Contractors*** *Common language groups:* ***English & Spanish***
Landscape Maintenance Operations *(Permit mandated)*	Organic enrichment from grass cuttings, leaves, and organic debris Pesticides and herbicides Fertilizers and nutrients	*Media of choice:* ***Written, Social Media, City Website*** *Locations to disseminate information:* ***Citywide, Businesses, Landscape Companies, Contractors*** *Common language groups:* ***English & Spanish***
Construction Site Operators *(Permit mandated)*	Sediment pH altering substances	*Media of choice:* ***Written, Social Media, City Website*** *Locations to disseminate information:* ***Citywide, Business, Contractors*** *Common language groups:* ***English & Spanish***

Activity or Business likely to Use, Apply, or Discharge the Pollutant of Concern	Pollutants of Concern	Effective Ways to Convey Messages to the Targeted Group
Industrial Businesses	Toxic chemicals	*Media of choice:* ***Written, Social Media, City Website*** *Locations to disseminate information:* ***Citywide, Businesses*** *Common language groups:* ***English & Spanish***
Restaurants	Illicit discharges Sanitary Sewer Overflows from FOG issues	*Media of choice:* ***Written, Social Media, City Website*** *Locations to disseminate information:* ***Citywide, Restaurants*** *Common language groups:* ***English & Spanish***

2.3 IDENTIFICATION OF THE BASELINE OF KNOWLEDGE AND AWARENESS

Now that we have identified the pollutants of concern, the target audiences, and the messages to convey, we need to turn our attention to understanding the baseline knowledge of the targeted audience on the subject of interest. How much do they know about the subject? And where should we start? If we direct messages to them that are too elementary, we not only insult their intelligence, but the messages will also tend to be easily dismissed by them because they will automatically think "*I already know that*" and they won't give our message a second thought. If we convey messages to them that are overly complex or not readily understood, they will also dismiss them thinking that they are not relevant to them nor want to take the time to figure them out. We need to understand where our audience is coming from and gauge their level of understanding so that we can send out messages that are relevant and of interest to them. There are various ways to do this. The Phase II MS4 Permit, however, requires two specific ways. The City of Riverbank is required to obtain public input in the development of the City of Riverbank's E&O program. The second requirement is for the City of Riverbank to conduct surveys at least twice during the Permit's term (July 1, 2013 – June 30, 2018) to gauge the level of awareness in the target audiences and the effectiveness of the E&O program.

2.3.1 Public Involvement

Public involvement can sometimes be an allusive objective. For some municipalities it happens almost naturally and for others it is something that has to be developed and nurtured. The first step in public involvement is to solicit it from interested parties. Where do you find these interested parties? We suggest starting with local interest groups such as clubs, docents, and other community-based organizations. If these groups are non-existent or non-responsive, you may then need to appeal to interested individuals in your community. Where do you find these individuals? They tend to be the ones already involved. They attend public hearings, sit on community committees, and volunteer in other ways. Table 11 contains methods that the City of Riverbank will use, or attempt to use, to reach out to interested parties to provide input on the E&O program.

SELECTING THE TARGET

TABLE 11 – METHODS TO OBTAIN PUBLIC INVOLVMENT

Ways to Reach Out to Interested Parties to Provide Input on the E&O Program
Make an appeal for interested parties in one of the municipal council meetings
Present this E&O Plan at a council meeting and have a time for public comment on the Plan.
Storm Water links identified on City website.

2.3.2 Surveys

As previously mentioned, the Permit requires the municipality to perform two surveys during the Permit term. The purpose of the first survey is to establish a baseline of awareness of the targeted audiences concerning the topics of concern. The second survey is performed at a later date, presumably after implementation of the E&O Plan and the "broadcasting" of messages to the targeted groups. Ideally, this survey will show whether or not there has been an increase in knowledge about a subject of concern within the targeted group and, if designed and executed correctly, it should show areas that need further education and provide insight to what should be prioritized. Surveys and polls actually are a field of expertise unto themselves. Companies like Gallup have refined polling and surveys to an art and science. American companies pay millions of dollars for accurate and reliable survey data. However, a "survey" can be as simple as polling your office colleagues on who wants pizza or hamburgers for lunch. The Phase II MS4 Permit does not provide any specific guidance about the nature, scope, or accuracy of the surveys other than they are "*to gauge the level of awareness in target audiences and effectiveness of education tasks.*" Therefore, it is left somewhat to the discretion of the municipality to determine the appropriate survey methodology for the program. It is probably more than asking "who wants burgers?", but not as expensive and elaborate as a Gallup poll. In Appendix 4 some recommended survey tools and references have been provided. Some of these methods are quite cost effective. Also included in Appendix 4 is a pool of survey questions that have been developed and sorted by the various water quality concerns.

When building a survey, the municipality is attempting to get the most representative response from the targeted audience. As we discussed earlier in this plan, the target audience can greatly differ based on topic. To better understand where our answers are coming from we need to understand who is providing answers to the questions. The municipality can establish a few qualifier questions to help sort answers by audience. An example qualifier question would be "do you live, work, or go to school in the City of Riverbank?" This would establish if the survey taker would be a contributing factor to water quality issues within the municipality, or if they have been targeted by E&O efforts. The rest of the questions would gauge the survey taker's awareness of the selected storm water issues.

The trick about surveys is getting it into the right hands and also knowing a little about the demographics of the survey taker. Surveys should be kept short and simple – because, frankly, people do not generally have much time or patience to give when answering questions. We recommend that, when possible, the survey be administered in person because this will help give it a more personal touch and the questions may generate opportunities to provide informal storm water education about specific issues of interest to the survey taker. Another benefit of giving it in person, is that the person administrating the survey questions can do some informal assessment of the demographics of the person taking the survey. Because the survey is being kept short, there needs to be value in every question posed.

SELECTING THE TARGET

Let's now look at how a survey might be conducted. If the pollutants of concern for a municipality include pesticides and organic enrichment / low dissolved oxygen, a municipality may want to consider administering surveys during Year 2 of the Permit term at a local home improvement center, retail nursery, or during a home & garden show in your community. (Of course, you would need to get approval from the business or event before administrating the survey.) By conducting a survey at this location and in this way, you could expect to have contact with individuals in your community who are more likely to purchase and use landscape chemicals and to perform landscape maintenance – this is your target audience. This is by no means a completely "scientific" approach, but it does meet the intent of the permit requirement and is a baseline "*gauge of awareness*" in the target audience. It would then be good to return to the same location in Year 4 or 5 of the Permit term to do a follow-up survey with the same questions to see if there has been any change in the responses and to determine if awareness of the survey subject matter has increased.

In Table 12, identify the surveys that you will conduct during the current Permit term.

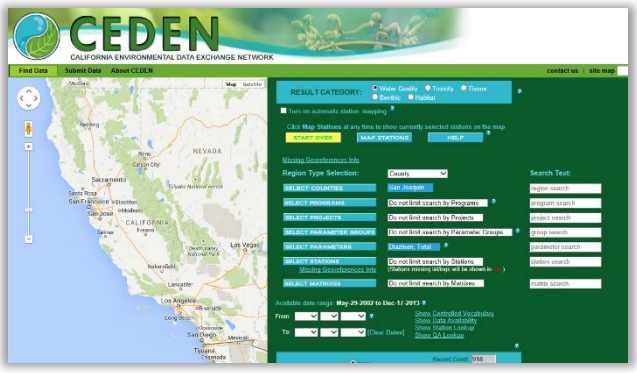
TABLE 12 – CITY OF RIVERBANK STORM WATER AWARENESS SURVEYS

Location & Method	Baseline or Follow-up?	Target Audience(s)	Compliance Year that the Survey will be Conducted
Website Survey	Baseline & Follow-up	Residents & Businesses	2016

2.4 PUTTING IT TOGETHER - PRIORITIZATION OF MESSAGES

In the preceding sections, the City of Riverbank identified local water quality concerns, messages to communicate, the target audiences, and ways to measure the baseline and increase of knowledge within the target audiences. Now it is time to develop a focused approach to the E&O program. In this section of the E&O Plan, we want to pull all the pieces together to be able to state very concisely who we want to talk to and what do we want to tell them. And, we want to prioritize the messages. If we could only convey one message, what would be the most important? Prioritization of messages can be very subjective. After all, each of the water quality concerns are important and pose a potentially equal threat to water quality. But, we do have some clues available to us as to what should be prioritized. These clues include:

Water Quality Testing Results – The analytical results are the bottom line. Is water quality improving or worsening? When analytical data indicates a worsening of water quality, the priority of the related E&O messages should be elevated. Likewise, improvements in water quality could justify lowering the priority level. Analytical data is not always available for each pollutant of concern, but when it is available the City of Riverbank should review it to see if there has been any change in water quality. The Phase II MS4 does not require monitoring for all pollutants of concern; and, for those that it does require testing, data is not generated every year. However, there are some internal and external sources of analytical data available to the municipality. The City of Riverbank should evaluate data it generates from the analytical testing of non-storm water flows from its own outfalls as required in Section E.9 of the Phase II



SELECTING THE TARGET

MS4 Permit and data generated from the receiving water monitoring that may be required of the municipality in Section E.13 of the Permit. These internal sources of data are generated from its own storm water program. External data is sometimes available from receiving water testing performed by other nearby entities. The City of Riverbank can access publicly available data from the California Environmental Data Exchange Network (CEDEN) at http://ceden.org.

Field Data Trends – Another clue to help assess the prioritization of storm water messages is field data such as number of SSOs, volume of trash removed from the drainage system or from street sweeping, number of illicit discharges or reported cases of dumping, number of days local water recreation facilities were shut down due to elevated bacteria or algae levels, amount of e-waste or household hazardous waste taken to approved recycling facilities. Trends in field data can be used to indicate if threats to water quality are on the increase or are diminishing. For those on the increase, the municipality would want to elevate the priority of the message associated with that pollutant or water quality condition. But, downward trends may allow the priority level to be lowered. For example, if field data from Public Works shows that the volume of trash captured and removed from the storm drainage system is decreasing over the last several years, but that the amount of organic debris in residential neighborhood drains remains high, the prioritization of messages about trash and litter could be lowered and the prioritization of messages about grass cuttings and blowing organic debris into the street could be elevated.

Survey Results – As mentioned in section 2.3.2, surveys can be used to provide some more clues about how to prioritize the storm water E&O messages. Careful evaluation and analysis of survey results should be done to identify gaps in knowledge in target audiences about the subjects of concern. A gap in knowledge would justify raising the priority level of related messages. The survey analyst should also look for growth of knowledge in the follow-up surveys, which may justify lowering the priority level and allowing another pollutant-of-concern's message to be elevated.

Now let's put it together. In Table 13, enter the messages that were identified earlier in Tables 3, 4, 6, and 7. For each of those messages, enter the target audience(s) and the associated water quality concern(s) as identified in Tables 8, 9, and 10. Finally, set the prioritization of the message based on available water quality testing results, field data trends, and survey results. Don't worry if the prioritization feels a little subjective. Do your best to prioritize, but remember that all of the water quality concerns are important and will be addressed at some level in the City of Riverbank's E&O program. Table 13 will be revised from time to time especially in conjunction with the annual Performance Effectiveness Assessment and Improvement Evaluation required by the Permit in Section E.14.

TABLE 13 – SUMMARY & PRIORITIZATION OF STORM WATER E&O MESSAGES

Priority (1 being the highest)	Message	Target Audience(s)	Pollutant(s) of Concern
1	**Only Rain Down the Drain**		
2			

3 INVENTORY OF EXISTING RESOURCES

Before we move on to determine what E&O activities and tasks the City of Riverbank will perform, let's conduct a bit of an inventory to see what we have to work with. Education programs can be expensive and time consuming. Storm water managers who have limited time and resources need to "work smart", so the City of Riverbank will want to try to tap into resources, outreach tools, and public participation opportunities that already exist. Furthermore, the Permit encourages municipalities to utilize existing information and resources and to participate in collaborative E&O programs. In this section and with the use of the resource reference and worksheet in Appendix 5, the City of Riverbank will perform an inventory of these existing resources. We have included resources that you may not be aware of. In addition, you may have access to resources we know nothing about. If that is the case, please add them in Appendix 5 and let the other collaborating municipalities know about them. The worksheet in Appendix 5 will allow you to identify which of these will be used for the E&O tasks that are described in Section 4 of this E&O Plan.

During Year 1 of the Permit, the City of Riverbank was required to select and identify one or more of the following public E&O options. The option(s) selected by the City of Riverbank is denoted with an "X".

- ☐ Contributing to a countywide storm water program, as determined appropriate by the Permittee members, so that the countywide storm water program conducts outreach and education on behalf of its members; **or**
- ☐ Contributing to a regional outreach and education collaborative effort (a regional outreach and education collaborative effort occurs when all or a majority of the Permittees collaborate to conduct regional outreach and education. Regional outreach and education collaboration includes Permittees defining a uniform and consistent message, deciding how best to communicate the message, and how to facilitate behavioral changes, then collaboratively apply what is learned through local jurisdiction groups, pooling resources and skills.); **or**
- ☐ Fulfilling outreach and education requirements within their jurisdictional boundaries on their own; **or**
- ☒ A combination of the previous options, so that all requirements are fulfilled.

4 IMPLEMENTATION OF THE PLAN

Let's review our progress so far in developing this Comprehensive Storm Water Education & Outreach Plan.

In Section 2 of the E&O Plan we accomplished the following steps:

- ☑ **Step 1** - Identify water quality problems;
- ☑ **Step 2** - Identify target audiences;
- ☑ **Step 3** - Identify the baseline of knowledge and awareness of the target audience;
- ☑ **Step 4** – Identify and prioritize the messages;

In Section 3 of the E&O Plan we performed the following inventory:

- ☑ **Step 5** – Inventory existing resources;

Now we need to complete the process by determining how to implement the E&O Plan. In this section of the E&O Plan we will put the "nuts and bolts" to the Plan by doing the following:

Step 6 – Detail how the E&O tasks required by the Phase II MS4 Permit in section E.7.a.ii. (b) – (m) will be accomplished;

Step 7 - Identify who is responsible for implementing each task;

Step 8 - Identifying the schedule for task implementation; and

Step 9 – Identify the process for evaluating anticipated task effectiveness.

4.1 IDENTIFY THE E&O AND PUBLIC INVOLVEMENT TASKS

In Section E.7.a., the Phase II MS4 Permit lists thirteen specific activities, or "implementation level" tasks that each municipality must incorporate into its comprehensive E&O program. In addition, Section E.8. requires five tasks to encourage public involvement and participation in the City of Riverbank's storm water program. The following lists the E&O and public participation tasks and provides a summary of how the City of Riverbank will satisfy each requirement.

E&O Tasks:

Task 1

Develop and implement a public education strategy that establishes education tasks based on water quality problems, target audiences, and anticipated task effectiveness. The strategy must include identification of who is responsible for implementing specific tasks and a schedule for task implementation. The strategy must demonstrate how specific high priority storm water quality issues in the community or local pollutants of concern are addressed.

This E&O Plan meets the requirements of Task 1 in that is identifies in Section 2 the water quality problems and target audiences. The Plan identifies in Sections 2.4 and 4.4 how the City of Riverbank will measure and evaluate the effectiveness of its E&O program and the strategy used to prioritize water quality issues. In Appendix 6, the E&O Action Plan identifies who is responsible for implementing each task and provides an implementation schedule.

IMPLEMENTATION OF THE PLAN

Task 2

Implement surveys at least twice during the permit term to gauge the level of awareness in target audiences and effectiveness of education tasks.

Section 2.3.2 and Table 12 identify how the City of Riverbank will implement surveys at least twice during the permit term. Appendix 4 provides additional reference and guidance material about performing surveys.

Task 3

Develop and convey a specific storm water message that focuses on the following:

1) *Local pollutants of concern*
2) *Target audience*
3) *Regional water quality issues*

In Section 2 of this E&O Plan, the City of Riverbank walks through the process of identifying the above three items and the related messages. These messages are summarized and prioritized in Table 13.

Task 4

Develop and disseminate appropriate educational materials to target audiences and translate into applicable languages when appropriate (e.g. the materials can utilize various media such as printed materials, billboard and mass transit advertisements, signage at select locations, stenciling at storm drain inlets, radio advertisements, television advertisements, and websites);

In Section 2 of this E&O Plan, the City of Riverbank considered the demographics of the target audiences, including dominant languages. Table 9 summarizes the demographic-based approach for each water quality concern and identifies the media of choice, locations to disseminate information, and the common language groups. The City of Riverbank identifies in the E&O Action Plan (included in Appendix 6) specific information about what media will be used, and where it will be used to convey the messages identified in Table 13 to the target audiences.

Task 5

Utilize public input (e.g., the opportunity for public comment, or public meetings) in the development of the program;

Section 2.3.1 of this Plan and Table 11 identify the methods that the City of Riverbank will use to solicit and utilize public input in the development of the E&O program.

Task 6

Distribute the educational materials, using whichever methods and procedures determined appropriate during development of the public education strategy;

Table 9 summarizes the demographic-based approach for each water quality concern and identifies the media of choice, locations to disseminate information, and the common language groups. The City of Riverbank identifies in the E&O Action Plan (included in Appendix 6) specific information about what media will be used, and where and how it will be used to convey the messages identified in Table 13 to the target audiences.

Task 7

Convey messages to explain the benefits of water-efficient and storm water-friendly landscaping, using existing information if available;

These two areas are identified in Table 10 as Permit-mandated E&O topics. Table 10 identifies the media of choice, locations to disseminate information, and the common language groups. Appendix 5 provides an inventory of existing resources and tools that the City of Riverbank may utilize to convey the messages. The City of Riverbank identifies in the E&O Action Plan (included in Appendix 6) specific information about how it will convey these messages to the target audiences.

Task 8

Develop and convey messages specific to reducing illicit discharges with information about how the public can report incidents to the appropriate authorities. The Permittee must promote, publicize, and facilitate public reporting of illicit discharges or water quality impacts associated with discharges into or from MS4s through a central contact point, including phone numbers for complaints and spill reporting, and publicize to both internal Permittee staff and the public. If 911 is selected, the Permittee must also create, maintain, and publicize a staffed, non-emergency phone number with voicemail, which is checked daily;

During Year 1 of the Phase II MS4 Permit term, the City of Riverbank prepared a spill plan that identifies how spills are reported, tracked, responded to, and followed up on. The Spill Plan is accessible to the public on the City of Riverbank's website. Consistent with the Spill Plan, the City of Riverbank identifies in the E&O Action Plan (included in Appendix 6 of this E&O Plan) specific information about how it will achieve the above illicit discharge reporting and tracking requirements.

Task 9

Develop and convey messages specific to proper application of pesticides, herbicides, and fertilizers;

These activities are identified in Table 10 for the Permit-mandated E&O audiences. The messages for these activities are identified in Section 2.1.1 and in Table 13. Table 10 identifies the media of choice, locations to disseminate information, and the common language groups. Appendix 5 provides an inventory of existing resources and tools that the City of Riverbank may utilize to convey the messages. The City of Riverbank identifies in the E&O Action Plan (included in Appendix 6) specific information about how it will convey these messages to the target audiences.

Task 10

Within the Permittee's jurisdiction, provide independent, parochial, and public schools with materials to effectively educate school –age children about storm water runoff and how they can help protect water quality habitat in their local watershed(s). The Permittee is ***encouraged [but not mandated]***[8] *to use environmental and place-based, experiential learning materials that are integrated into school curricula and school facility management. In the case that an environmental and place-based, experiential learning local program does not exist, the Permittee may use California's Education and Environment Initiative Curriculum or equivalent.*

Appendix 5 provides an inventory of existing resources and tools that the City of Riverbank may utilize to convey the above-referenced messages to school-age children. The applicable schools are listed in

[8] Emphasis and parentheses added by the E&O Plan developer.

Appendix 7 of this E&O Plan. The City of Riverbank identifies in the E&O Action Plan (included in Appendix 6) specific information about how it will convey these messages to the schools and school-age children.

Task 11

Develop (or coordinate with existing, effective programs) and convey messages specific to reducing discharges from organized car washes, mobile cleaning and pressure washing operations, and landscape irrigation.

These activities and related messages are identified in Table 4 and are included in Table 10 as Permit-mandated E&O audiences and activities. Table 10 identifies the media of choice, locations to disseminate information, and the common language groups. Appendix 5 provides an inventory of existing resources and tools that the City of Riverbank may utilize to convey the messages. The City of Riverbank identifies in the E&O Action Plan (included in Appendix 6) specific information about how it will convey these messages to the target audiences.

Task 12

Conduct storm water-friendly education for organized car wash participants and provide information pertaining to car wash discharge reduction. The Permittee may use the Sacramento Stormwater Quality Partnership's River Friendly Carwash Program, or equivalent, for guidance.

This task seems to be very similar or possibly redundant with Task 11. This activity and related messages are identified in Table 4 and are included in Table 10 as a Permit-mandated E&O audience and activity. Table 10 identifies the media of choice, locations to disseminate information, and the common language groups. Appendix 5 provides an inventory of existing resources and tools that the City of Riverbank may utilize to convey the messages. The City of Riverbank identifies in the E&O Action Plan (included in Appendix 6) specific information about how it will convey these messages to the target audience.

Task 13

Develop and convey messages specific to mobile cleaning and pressure wash businesses.

This task seems to be very similar or possibly redundant with Task 11. These activities and related messages are identified in Table 4 and are included in Table 10 as Permit-mandated E&O audiences and activities. Table 10 identifies the media of choice, locations to disseminate information, and the common language groups. Appendix 5 provides an inventory of existing resources and tools that the City of Riverbank may utilize to convey the messages. The City of Riverbank identifies in the E&O Action Plan (included in Appendix 6) specific information about how it will convey these messages to the target audiences.

Public Participation Tasks:

Task 1

Develop a public involvement and participation strategy that establishes who is responsible for specific tasks and goals.

In Appendix 6, the E&O Action Plan identifies who is responsible for implementing the public involvement tasks and provides an implementation schedule. Section 2.3.1 of this Plan and Table 11 identify the methods that the City of Riverbank will use to solicit and utilize public input in the development of the E&O program and public involvement and participation strategy.

Task 2

Consider development of a citizen advisory group (either a stand-alone group or utilize an existing group or process). The advisory group may consist of a balanced representation of all affected parties, including residents, business owners, and environmental organizations in the MS4 service area and/or affected watershed. The Permittee may invite the citizen advisory group to participate in the development and implementation of all parts of the community's storm water program.

Section 2.3.1 of this Plan and Table 11 identify the methods that the City of Riverbank will use to solicit and utilize public input in the development of the E&O program and public involvement and participation strategy. When interested parties have been identified, the City of Riverbank will take the next step to form a citizen advisory group by inviting them to an initial meeting to scope the role and involvement of the committee in the storm water program implementation.

Task 3

Create opportunities for citizens to participate in the implementation of BMPs through sponsoring activities (e.g., stream/beach/lake clean-ups, storm drain stenciling, volunteer monitoring and educational activities).

Appendix 5 provides an inventory of existing public involvement opportunities in which interested citizens can become involved. The appendix also lists other common activities that the City of Riverbank can offer as involvement opportunities for those interested individuals or community groups. The City of Riverbank identifies in the E&O Action Plan (included in Appendix 6) specific information about what involvement opportunities it will offer to the public.

Task 4

Ensure the public can easily find information about the Permittee's storm water program.

Information about the City of Riverbank's storm water program can be found online at [Website] or they can call [Telephone] to request information or to speak to a program representative.

Task 5

Actively engage in the Permittee's Integrated Regional Water Management Plan (IRWMP) or other watershed-level planning effort.

Appendix 5 provides an inventory of existing Central Valley IRWMP and other watershed-level planning groups organized by county. The City of Riverbank identifies in the E&O Action Plan (included in Appendix 6) the groups in which it participates and their level of involvement.

4.2 IDENTIFICATION OF WHO IMPLEMENTS THE PLAN

Ultimately the Legal Responsible Person (LRP) for the City of Riverbank who signed the Notice of Intent is responsible for the implementation of all of the Permit requirements. But, authority for the implementation of the overall Storm Water Program has been delegated to a staff person who functions in the role of the Storm Water Program Coordinator. The LRP and the Storm Water Coordinator positions are occupied by the following persons:

IMPLEMENTATION OF THE PLAN

Legal Responsible Person:	Jill Anderson
	City Manager
	(209) 863-7115
	janderson@riverbank.org
Storm Water Program Coordinator:	Kathleen Cleek
	Development Services Administration Manager
	Development Services
	(209) 863-7120
	kcleek@riverbank.org

In addition, for each implementation level task, a staff person has been designated by the City of Riverbank to assure that it is accomplished. In some cases, the City of Riverbank is collaborating with other organizations to accomplish some of these E&O tasks. Persons and organizations responsible for the implementation of each specific E&O task have been identified on the E&O Action Plan included in Appendix 6 of this Plan.

4.3 SCHEDULE FOR IMPLEMENTATION

This Comprehensive Storm Water Education & Outreach Plan and program are required by the Phase II MS4 Permit to be developed and implemented by June 30, 2015. The requirement to "implement" does not mean to complete the entire E&O program by that date, but to set it into motion and to implement the various E&O tasks identified in Section 4.1 per an established schedule. The schedule for the implementation of the 13 E&O tasks is included in the E&O Action Plan that is contained in Appendix 6 of this Plan. Each year, during the Performance Effectiveness Assessment and Improvement evaluation and the annual reporting process, the E&O task schedule will be assessed in regards to any changing priorities as described in Section 2.4 of this Plan. As necessary, schedules will be modified to assure that priority tasks are achieved ahead of those having lower priorities.

4.4 MEASURING EFFECTIVENESS OF THE PLAN

After performing the tasks outlined in this Plan, the City of Riverbank will evaluate the effectiveness the E&O program during the Performance Effectiveness Assessment and Improvement Plan (PEAIP) evaluation and the annual reporting process. This evaluation will be completed using the CASQA guidance for the PEAIP[9]

The effectiveness assessment will evaluate the E&O program by assessing the six outcome levels with the following three steps:

Step A – Characterizing the Problem: This step involves three tasks: 1) evaluating existing conditions; 2) defining problem conditions; and 3) prioritizing problem conditions. The prioritization of problem conditions will lead to Step B which will target the outcomes. As we already saw in Section 2.4

[9] The effectiveness assessment process described in this section is based on the anticipated new CASQA process as described in the presentation and posted-materials at https://www.casqa.org/effectiveness_assessment.

of this E&O Plan, the City of Riverbank has performed these three steps in initially prioritizing its program. However, on an annual basis the City of Riverbank will utilize the PEAIP to re-evaluate priority E&O targets and to adjust its E&O program.

Step B – Targeting the Outcomes: This step of the effectiveness assessment also has three tasks: 1) identifying end-state targets; 2) establishing interim targets; and 3) identifying data requirements. In taking this step, we are identifying the final objectives (end-state) of our E&O program (i.e. raising dissolved oxygen levels in downstream receiving water). But, we also set some intermediate goals, such as improvement of water quality of the MS4 discharges (i.e. less oxygen demand and lower nutrient levels in discharges from the municipality's outfalls, which should have a positive effect on the receiving water). We also identify the metrics that will be used to track progress towards the ultimate objectives.

Step C – Documenting Knowledge and Data Gaps: This third step also has three tasks: 1) compiling knowledge and data gaps from Step A; 2) compiling knowledge and data gaps from Step B; and 3) consolidating the knowledge and data gap list. Essentially, this is the processing of information gathered about the water quality problems, our E&O activities, and the measurement metrics. Through this process, we are assessing what the data is telling us about the success of our program. The data may indicate that it is too early to measure improvements or that we need more information to perform a proper evaluation.

The results of the annual effectiveness assessments will be reported in the annual reports and will be used to adjust and enhance the E&O program.

IMPLEMENTATION OF THE PLAN

APPENDIX 1 - GLOSSARY

Glossary for the Education & Outreach Plan[10]

Activism – is the practice of action or involvement as a means of achieving goals.

Beneficial Uses - The Uses of water of the State protected against degradation, such as domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation and preservation of fish and wildlife, and other aquatic resources or preserves.

Catch Basin - A catch basin (a.k.a., storm drain inlet) is an inlet to the storm drain system that typically includes a grate or curb inlet where storm water enters the catch basin and a sump to capture sediment, debris and associated pollutants. Catch basins act as pretreatment for other treatment practices by capturing large sediments. The performance of catch basins at removing sediment and other pollutants depends on the design of the catch basin (e.g., the size of the sump), and routine maintenance to retain the storage available in the sump to capture sediment.

Community Based Social Marketing (CBSM) - A systematic way to change the behavior of communities to reduce their impact on the environment. Realizing that simply providing information is usually not sufficient to initiate behavior change, CBSM uses tools and findings from social psychology to discover the perceived barriers to behavior change and ways of overcoming these barriers.

Discharge of a Pollutant - The addition of any pollutant or combination of pollutants to waters of the United States from any point source, or any addition of any pollutant or combination of pollutants to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation. The term includes additions of pollutants to waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works.

Discharger - Any responsible party or site owner or operator within the Permittees' jurisdiction whose site discharges storm water runoff, or a non-storm water discharge.

Erosion - The physical detachment of soil due to wind or water. Often the detached fine soil fraction becomes a pollutant transported storm water runoff. Erosion occurs naturally, but can be accelerated by land disturbance and grading activities such as farming, development, road building, and timber harvesting.

Healthy Watershed - Healthy watersheds are watersheds that function well ecologically and are sustainable. They support healthy, diverse aquatic habitat, have healthy riparian areas and corridors with sufficient vegetative buffer area to minimize land pollutant runoff into surfaces waters, sufficient cover and canopy to maintain healthy habitat, and have near natural levels of sediment transport. Surface waters meet water quality objectives, and sediments are sufficiently low in pollutants to provide for healthy habitat. Groundwaters are near natural levels in quantity and quality, for water supply purposes and for base flow for sustaining creek habitat and migratory fish routes. A Healthy Watershed sustains these characteristics through measures that

[10] Definitions (unless otherwise specified) are from the Phase II MS4 NPDES General Permit, Order No. 2013-0001-DWQ, Attachment I; www.swrcb.ca.gov/water_issues/programs/stormwater/docs/phsii2012_5th/att_i_glossary_final.pdf

ensure the dynamics that provide these healthy factors and functions are protected. For example, watersheds must be protected, through low impact development or other forms of protection, from hydromodification that adversely affects recharge areas' function or creeks' bed or bank stability. Creek buffer/riparian areas must be protected from land disturbance activities. Healthy sustainable watersheds use less energy for imported water, have fewer greenhouse gas emissions, and a lesser carbon footprint than unhealthy watersheds.

Illicit Discharge - Any discharge to a municipal separate storm sewer (storm drain) system (MS4) that is prohibited under local, state, or federal statutes, ordinances, codes, or regulations. The term illicit discharge includes all non-storm water discharges not composed entirely of storm water and discharges that are identified under the Discharge Prohibitions section of this General Permit. The term illicit discharge does not include discharges that are regulated by an NPDES permit (other than the NPDES permit for discharges from the MS4).

Impaired Waterbody - A waterbody (i.e., stream reaches, lakes, waterbody segments) with chronic or recurring monitored violations of the applicable numeric and/or narrative water quality criteria. An impaired water is a water that has been listed on the California 303(d) list or has not yet been listed but otherwise meets the criteria for listing. A water is a portion of a surface water of the state, including ocean, estuary, lake, river, creek, or wetland. The water currently may not be meeting state water quality standards or may be determined to be threatened and have the potential to not meet standards in the future. The State of California's 303(d) list can be found at http://www.swrcb.ca.gov/quality.html .

Municipal Separate Storm Sewer System (MS4) - The regulatory definition of an MS4 (40 CFR 122.26(b)(8)) is "a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a state, city, town, borough, county, parish, district, association, or other public body (created to or pursuant to state law) including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the Clean Water Act that discharges into waters of the United States. (ii) Designed or used for collecting or conveying storm water; (iii) Which is not a combined sewer; and (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2." In practical terms, operators of MS4s can include municipalities and local sewer districts, state and federal departments of transportation, public universities, public hospitals, military bases, and correctional facilities. The Storm water Phase II Rule added federal systems, such as military bases and correctional facilities by including them in the definition of small MS4s.

National Pollutant Discharge Elimination System (NPDES) - A national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of the CWA.

Outfall - A point source as defined by 40 CFR 122.2 at the point where a municipal separate storm sewer discharges to waters of the United States and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other waters of the United States and are used to convey waters of the United States. Specific to Ocean Plan monitoring, outfalls include those measuring 18 inches or more in diameter.

Permittee/Permittees - Municipal agency/agencies and Non-traditional Small MS4s that are named in and subject to the requirements of this General Permit.

Pollutant - Dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.)), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.

Pollutants of Concern - Pollutants of concern found in urban runoff include sediments, non-sediment solids, nutrients, pathogens, oxygen-demanding substances, petroleum hydrocarbons, heavy metals, floatables, polycyclic aromatic hydrocarbons (PAHs), trash, and pesticides and herbicides.

Pollution - An alteration of the quality of the waters of the state by waste to a degree which unreasonably affects the beneficial uses of the water or facilities which serve those beneficial uses.

Priority Storm Drain Inlets - Storm drain inlets that drain to sensitive receiving water bodies or water bodies with history of illegal dumping. Storm drain inlets that are located in areas where the maximum number of citizens are exposed (this may include areas of high foot traffic).

Receiving Water – Surface water that receives regulated and unregulated discharges from activities on land.

Riparian Areas – Plant communities contiguous to and affected by surface and subsurface hydrologic features of perennial or intermittent water bodies. Riparian areas have one or both of the following characteristics: 1) distinctively different vegetative species than adjacent areas, and 2) species similar to adjacent areas but exhibiting more vigorous or robust growth forms. Riparian areas are usually transitional between wetland and upland.

Separate Implementing Entity (SIE) – An entity that a permittee may utilize to satisfy one or more of the permit obligations. SIE may include a flood control agency, a Phase I permittee, a storm water consulting firm, etc.

Small MS4 – An MS4 that is not permitted under the municipal Phase I regulations, and which is "owned or operated by the United States, a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity…." (40 CFR §122.26(b)(16)).

Solid Waste - All putrescible and non-putrescible solid, semisolid, and liquid wastes as defined by California Government Code Section 68055.1(h).

Storm Drain System - The basic infrastructure in a municipal separate storm sewer system that collects and conveys storm water runoff to a treatment facility or receiving water body.

Storm Water – Storm water is generated when precipitation from rain and snowmelt events flows over land or impervious surfaces and does not percolate into the ground. As storm water flows over the land or impervious surfaces, it accumulates debris, chemicals, sediment or other pollutants that could adversely affect water quality if the storm water is discharged untreated.

Storm Water Treatment System - Any engineered system designed to remove pollutants from storm water runoff by settling, filtration, biological degradation, plant uptake, media absorption/adsorption or other physical, biological, or chemical process. This includes landscape-based systems such as grassy swales and bioretention units as well as proprietary systems.

Structural Controls - Any structural facility designed and constructed to mitigate the adverse impacts of storm water and urban runoff pollution.

Surface Drainage - Any above-ground runoff (sheet, shallow concentrated, and open channel) that flows into the storm drain system.

Targeted Audience - Group(s) of people the Permittee has targeted to receive educational message.

Total Maximum Daily Loads (TMDLs) - The maximum amount of a pollutant that can be discharged into a waterbody from all sources (point and nonpoint) and still maintain water quality standards. Under CWA section 303(d), TMDLs must be developed for all waterbodies that do not meet water quality standards even after application of technology-based controls, more stringent effluent limitations required by a state or local authority, and other pollution control requirements such as BMPs.

Trash and Debris - Trash consists of litter and particles of litter. California Government Code Section 68055.1 (g) defines litter as all improperly discarded waste material, including, but not limited to, convenience food, beverage, and other product packages or containers constructed of steel, aluminum, glass, paper, plastic and other natural and synthetic materials, thrown or deposited on the lands and waters of the state, but not including the properly discarded waste of the primary processing of agriculture, mining, logging, sawmilling, or manufacturing.

Treatment - Any method, technique, or process designed to remove pollutants and/or solids from polluted storm water runoff, wastewater, or effluent.

Water Efficient Landscape Ordinance - The Model Water Efficient Landscape Ordinance (Title 23, Division 2, Chapter 2.7 of the California Code of Regulations) took effect January 1 2010 and is designed to: (1) promote the values and benefits of landscapes while recognizing the need to invest water and other resources as efficiently as possible; (2) establish a structure for planning, designing, installing, maintaining and managing water efficient landscapes in new construction and rehabilitated projects; (3) establish provisions for water management practices and water waste prevention for existing landscapes; (4) use water efficiently without waste by setting a Maximum Applied Water Allowance as an upper limit for water use and reduce water use to the lowest practical amount; (5) promote the benefits of consistent landscape ordinances with neighboring local and regional agencies; (6) encourage local agencies and water purveyors to use economic incentives that promote the efficient use of water, such as implementing a tiered-rate structure; and (7) encourage local agencies to designate the necessary authority that implements and enforces the provisions of the Model Water Efficient Landscape Ordinance or its local landscape ordinance.

Water Quality Objectives - The limits or levels of water quality elements or biological characteristics established to reasonably protect the beneficial uses of water or to prevent pollution problems within a specific area. Water quality objectives may be numeric or narrative.

Water Quality Standards - State-adopted and U.S. EPA-approved water quality standards for waterbodies. The standards prescribe the use of the waterbody and establish the water quality criteria that must be met to protect designated uses. Water quality standards also include the federal and state anti-degradation policy.

IMPLEMENTATION OF THE PLAN

APPENDIX 2 - ACRONYMS

Acronyms of the Education & Outreach Plan

ASBS	**Area of Special Biological Significance**
BMP	**Best Management Practice**
CASQA	**California Storm Water Quality Association (www.CASQA.org)**
CGP	**Construction General Permit**
CWA	**Clean Water Act**
E&O	**Education & Outreach**
GIS	**Geographical Information System**
IGP	**Industrial General Permit**
IRWMP	**Integrated Regional Water Management Plan**
MS4	**Municipal Separate Storm Sewer System**
NPDES	**National Pollutant Discharge Elimination System**
SMARTS	**Storm Water Multi-Application, Reporting, and Tracking System (https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.jsp)**
SWMP	**Storm Water Management Plan**
SWPPP	**Storm Water Pollution Prevention Plan**
TMDL	**Total Maximum Daily Load**
USEPA	**United States Environmental Protection Agency**

IMPLEMENTATION OF THE PLAN

APPENDIX 3 – SECTIONS E.7 & E.8 OF THE PHASE II MS4 PERMIT

of two follow-up inspections and two warning letters or notices of violation. In making such referrals, the Permittee shall include, at a minimum, the following information:

a) Construction project or industrial facility location

b) Name of owner or operator

c) Estimated construction project size or type of industrial activity (including Standard Industrial Classification or North American Industry Classification System if known)

d) Records of communication with the owner or operator regarding the violation, including at least two follow-up inspections, two warning letters or notices of violation, and any response from the owner or operator

e) Enforcement Tracking –Track instances of non-compliance via hard-copy files or electronically. The enforcement tracking documentation shall include, at a minimum, the following:

(1) Name of owner/operator

(2) Location of construction project or industrial facility

(3) Description of violation

(4) Required schedule for returning to compliance

(5) Description of enforcement response used, including escalated responses if repeat violations occur or violations are not resolved within the time specified in the enforcement action.

(6) Accompanying documentation of enforcement response (e.g., notices of noncompliance, notices of violations, etc.)

(7) Any referrals to different departments or agencies

f) Recidivism Reduction – The Permittee shall identify chronic violators of any provision of this Order or of any related local ordinance or regulation and reduce the rate of noncompliance recidivism. The Permittee shall develop incentives, disincentives, or increase inspection frequency at the operator's sites to prevent chronic violations.

(iii) **Reporting** – The Permittee shall use State Water Board SMARTS to submit a summary of the past year activities and certify compliance with all requirements of this program element. The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the storm water program. If a Permittee is unable to certify compliance with a requirement in this program element see Section E.16.a.for compliance directions.

E.7. EDUCATION AND OUTREACH PROGRAM

Traditional Small MS4 Permittees may be required to implement Community-Based Social Marketing (CBSM) requirements as detailed in Attachment E upon determination by a Regional Board Executive Officer. The Regional Board Executive Officer shall notify Permittees within

three months of the permit adoption date of their determination to require CBSM.[9] The notification shall include a statement of reasons why the Executive Officer finds that implementation of CBSM is appropriate. If the Permittee disagrees with the Executive Officer determination, the Permittee may bring the dispute to the State Water Board Executive Director or his designee as specified under the Dispute Resolution provision of this Order.

E.7.a. Public Education and Outreach

Within the first year of the effective date of the permit, all Permittees shall comply with the requirements in this Section by selecting one or more of the following Public Education and Outreach options:

1) Contributing to a countywide storm water program, as determined appropriate by the Permittee members, so that the countywide storm water program conducts outreach and education on behalf of its members; or
2) Contributing to a regional outreach and education collaborative effort (a regional outreach and education collaborative effort occurs when all or a majority of the Permittees collaborate to conduct regional outreach and education. Regional outreach and education collaboration includes Permittees defining a uniform and consistent message, deciding how best to communicate the message, and how to facilitate behavioral changes, then collaboratively apply what is learned through local jurisdiction groups, pooling resources and skills.); or
3) Fulfilling outreach and education requirements within their jurisdictional boundaries on their own; or
4) A combination of the previous options, so that all requirements are fulfilled.

Reporting – By the first year Annual Report, the Permittee shall submit information indicating which Public Education and Outreach option(s) it will use to comply with this Section. For each option involving a contribution to a countywide storm water program or regional outreach and education collaborative effort, the Permittee shall complete and have available in the first year Annual Report documentation, such as a written agreement, letter or similar document, which confirms the collaboration with other MS4s.

(i)**Task Description** – Within the second year of the effective date of the permit, the Permittee shall develop and implement a comprehensive storm water public education and outreach program. The public education and outreach program shall be designed to reduce pollutant discharges in storm water runoff and non-storm water discharges to the MS4 through increased storm water knowledge and awareness in target communities. The Public Education and Outreach Program shall be designed to measurably increase the knowledge and awareness of targeted audience regarding the municipal storm drain system, impacts of urban runoff and non-storm water discharges on receiving waters, and potential BMP solutions for the target audiences, thereby reducing pollutant releases to the MS4 and the environment.

[9] Getting in Step, A Guide to, Conducting Watershed Outreach Campaigns, 3rd Edition, November 2010, EPA 841-B-10-002, USEPA, Office of Water.

(ii) **Implementation Level** –The Permittee shall, at a minimum:

(a) Develop and implement a public education strategy that establishes education tasks based on water quality problems, target audiences, and anticipated task effectiveness. The strategy must include identification of who is responsible for implementing specific tasks and a schedule for task implementation. The strategy must demonstrate how specific high priority storm water quality issues in the community or local pollutants of concern are addressed.

(b) Implement surveys at least twice during the permit term to gauge the level of awareness in target audiences and effectiveness of education tasks.

(c) Develop and convey a specific storm water message that focuses on the following:
1) Local pollutants of concern
2) Target audience
3) Regional water quality issues

(d) Develop and disseminate appropriate educational materials to target audiences and translate into applicable languages when appropriate (e.g. the materials can utilize various media such as printed materials, billboard and mass transit advertisements, signage at select locations, stenciling at storm drain inlets, radio advertisements, television advertisements, and websites);
(e) Utilize public input (e.g., the opportunity for public comment, or public meetings) in the development of the program;
(f) Distribute the educational materials, using whichever methods and procedures determined appropriate during development of the public education strategy;
(g) Convey messages to explain the benefits of water-efficient and storm water-friendly landscaping[10], using existing information if available;
(h) Develop and convey messages specific to reducing illicit discharges with information about how the public can report incidents to the appropriate authorities. The Permittee must promote, publicize, and facilitate public reporting of illicit discharges or water quality impacts associated with discharges into or from MS4s through a central contact point, including phone numbers for complaints and spill reporting, and publicize to both internal Permittee staff and the public. If 911 is selected, the Permittee must also create, maintain, and publicize a staffed, nonemergency phone number with voicemail, which is checked daily;
(i) Develop and convey messages specific to proper application of pesticides, herbicides, and fertilizers;
(j) Within the Permittee's jurisdiction, provide independent, parochial, and public schools with materials to effectively educate school –age children about storm water runoff and how they can help protect water quality habitat in their local watershed (s). The Permittee is encouraged to use environmental and place-based, experiential learning materials that are integrated into school curricula and school facility management[11]. In the case that an environmental and place-

[10] For example, Surfrider's Ocean Friendly Garden Program (http://www.surfrider.org/programs/entry/ocean-friendly-gardens) and the Water Efficient Landscape Ordinance (WELO)
[11] For example, Splash (*www.sacsplash.org/*),Effie Yeaw Nature Center (www.sacnature.net) or Yolo Basin (www. yolobasin.org)

based, experiential learning local program does not exist, the Permittee may use California's Education and Environment Initiative Curriculum[12] or equivalent.

(k) Develop (or coordinate with existing, effective programs) and convey messages specific to reducing discharges from organized car washes, mobile cleaning and pressure washing operations, and landscape irrigation.

(l) Conduct storm water-friendly education for organized car wash participants and provide information pertaining to car wash discharge reduction. The Permittee may use the Sacramento Stormwater Quality Partnership's River Friendly Carwash Program[13], or equivalent, for guidance.

(m) Develop and convey messages specific to mobile cleaning and pressure wash businesses.

(iii) **Reporting** – The Permittee shall use State Water Board SMARTS to submit a summary of the past year activities and certify compliance with all requirements of this program element. The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the storm water program. If a Permittee is unable to certify compliance with a requirement in this program element see Section E.16.a.for compliance directions.

E.7.b. Staff and Site Operator Training and Education

E.7.b.1. Illicit Discharge Detection and Elimination Training

(i) **Task Description** – Within the third year of the effective date of the permit, the Permittee shall develop and implement a training program for all Permittee staff who, as part of their normal job responsibilities, may be notified of, come into contact with, or otherwise observe an illicit discharge or illegal connection to the storm drain system.

(ii) **Implementation Level** – The training program shall include at a minimum:

(a) Identification of an illicit discharge or illegal connection.

(b) Proper procedures for reporting and responding to the illicit discharge or illegal connection.

(c) Follow-up training shall be provided as needed to address changes in procedures, techniques, or staffing.

(d) An annual assessment of their trained staff's knowledge of illicit discharge response and refresher training as needed.

(e) Training for new staff who, as part of their normal job responsibilities may be notified of, come into contact with, or otherwise observe an illicit discharge or illegal connection shall be trained no later than six months after the start of employment.

(f) Contact information, including the procedure for reporting an illicit discharge, shall be included in each of the Permittee's fleet vehicles that are used by field staff.

(g) Focused education on identified illicit discharges and associated illicit discharge locations.

[12] http://www.californiaeei.org/
[13] http://www.beriverfriendly.net/riverfriendlycarwashing/

(iii) **Reporting** – The Permittee shall use State Water Board SMARTS to submit a summary of the past year activities and certify compliance with all requirements of this program element. The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the storm water program. If a Permittee is unable to certify compliance with a requirement in this program element see Section E.16.a.for compliance directions.

E.7.b.2. Construction Outreach and Education

(a) Permittee Staff Training

(i) **Task Description** – Within the second year of the effective date of the permit, the Permittee shall ensure that all staff implementing the construction site storm water runoff control program are adequately trained.

(ii) **Implementation Level** – The Permittee may conduct in-house training or contract with consultants. Training shall be provided to the following staff positions of the MS4:

(a) Plan Reviewers and Permitting Staff - The Permittee shall ensure plan reviewers and permitting staff are qualified individuals, knowledgeable in the technical review of local erosion and sediment control plans, (including proper control measure selection, installation, implementation, and maintenance, as well as administrative requirements such as inspection reporting/tracking and the use of the Permittee's enforcement responses), and are certified pursuant to a State Water Board sponsored program as a Qualified Storm Water Pollution Prevention Plan (SWPPP) Developer (QSD), or a designated person on staff possesses the QSD credential.

(b) Erosion Sediment Control/Storm Water Inspectors - The Permittee shall ensure inspectors are qualified individuals, knowledgeable in inspection procedures, and are certified pursuant to a State Water Board sponsored program as either (1) a Qualified SWPPP Developer (QSD); (2) a Qualified SWPPP Practitioner (QSP); or (3) a designated person on staff possesses each credential (QSD to supervise plan review, QSP to supervise inspection operations).

(c) Third-Party Plan Reviewers, Permitting Staff, and Inspectors - If the Permittee utilizes outside parties to review plans and/or conduct inspections, the Permittee shall ensure these staff are trained.

(iii) **Reporting** – The Permittee shall use State Water Board SMARTS to submit a summary of the past year activities and certify compliance with all requirements of this program element. The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the storm water program. If a Permittee is unable to certify compliance with a requirement in this program element see Section E.16.a.for compliance directions.

(b) Construction Site Operator Education

(i) **Task Description** – Within the third year of the effective date of the permit, the Permittee shall develop and distribute educational materials to construction site operators.

(ii) **Implementation Level** – The Permittee shall do the following:

(a) Each year, provide information on training opportunities for construction operators on BMP selection, installation, implementation, and maintenance as well as overall program compliance.

(b) Develop or utilize existing outreach tools (i.e. brochures, posters, etc.) aimed at educating construction operators on appropriate selection, installation, implementation, and maintenance of storm water BMPs, as well as overall program compliance.

(c) Distribute appropriate outreach materials to all construction operators who will be disturbing land within the MS4 boundary. The Permittee's contact information and website shall be included in these materials.

(d) Update the existing storm water website, as necessary, to include information on appropriate selection, installation, implementation, and maintenance of BMPs.

(iii) **Reporting –** The Permittee shall use State Water Board SMARTS to submit a summary of the past year activities and certify compliance with all requirements of this program element . The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the storm water program. If a Permittee is unable to certify compliance with a requirement in this program element see Section E.16.a.for compliance directions.

E.7.b.3. Pollution Prevention and Good Housekeeping Staff Training

The Permittee shall train employees on how to incorporate pollution prevention/good housekeeping techniques into Permittee operations.

(i) **Task Description** – Within the second year of the effective date of the permit, the Permittee shall develop a biennial employee training program for appropriate employees involved in implementing pollution prevention and good housekeeping practices as specified in Section E.11. Pollution Prevention/Good Housekeeping for Permittee Operations of this Order. The Permittee shall determine the need for interim training during alternate years when training is not conducted, through an evaluation of employee Pollution Prevention/Good Housekeeping knowledge. All new hires whose jobs include implementation of pollution prevention and good housekeeping practices must receive this training within the first year of their hire date.

(ii) **Implementation Level** – The training program shall include the following:

(a) Biennial training for all employees implementing this program element. This biennual training shall include a general storm water education component, any new technologies, operations, or responsibilities that arise during the year, and the permit requirements that apply to the staff being trained. Employees shall

receive clear guidance on appropriate storm water BMPs to use at municipal facilities and during typical O&M activities.

(b) A biennual assessment of trained staff's knowledge of pollution prevention and good housekeeping and shall revise the training as needed.

(c) A requirement that any contractors hired by the Permittee to perform O&M activities shall be contractually required to comply with all of the storm water BMPs, good housekeeping practices, and standard operating procedures described above.

(d) The Permittee shall provide oversight of contractor activities to ensure that contractors are using appropriate BMPs, good housekeeping practices and following standard operating procedures.

(iii) **Reporting** – The Permittee shall use State Water Board SMARTS to submit a summary of the past year activities and certify compliance with all requirements of this program element. The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the storm water program. If a Permittee is unable to certify compliance with a requirement in this program element see Section E.16.a.for compliance directions.

E.8. PUBLIC INVOLVEMENT AND PARTICIPATION PROGRAM

(i) **Task Description** – Within the second year of the effective date of the permit, the Permittee shall involve the public in the development and implementation of activities related to the program. The public participation and involvement program shall encourage volunteerism, public comment and input on policy, and activism in the community. The Permittee shall also be involved in their Integrated Regional Water Management Plan (IRWMP) or other watershed-level planning effort, if applicable.

(ii) **Implementation Level** – At a minimum, the Permittee shall:

(a) Develop a public involvement and participation strategy that establishes who is responsible for specific tasks and goals.

(b) Consider development of a citizen advisory group (either a stand-alone group or utilize an existing group or process). The advisory group may consist of a balanced representation of all affected parties, including residents, business owners, and environmental organizations in the MS4 service area and/or affected watershed. The Permittee may invite the citizen advisory group to participate in the development and implementation of all parts of the community's storm water program.

(c) Create opportunities for citizens to participate in the implementation of BMPs through sponsoring activities (e.g., stream/beach/lake clean-ups, storm drain stenciling, volunteer monitoring and educational activities).

(d) Ensure the public can easily find information about the Permittee's storm water program.

(e) Actively engage in the Permittee's IRWMP or other watershed-level planning effort.

(iii) **Reporting** – The Permittee shall use State Water Board SMARTS to submit a summary of the past year activities and certify compliance with all requirements of this program element. The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the storm water program. If a Permittee is unable to certify compliance with a requirement in this program element see Section E.16.a.for compliance directions.

E.9. ILLICIT DISCHARGE DETECTION AND ELIMINATION

The Permittee shall develop an Illicit Discharge Detection and Elimination program to detect, investigate, and eliminate illicit discharges, including illegal dumping, into its system, to the extent allowable under law.[14] The Permittee may utilize the CWP's guide on Illicit Discharge Detection and Elimination as guidance.

E.9.a. Outfall Mapping

(i) **Task Description** – Within the second year of the effective date of the permit, the Permittee shall create and maintain an up-to-date and accurate outfall map[15]. The map may be in hard copy and/or electronic form or within a geographic information system (GIS) the development of the outfall map shall include a visual outfall inventory involving a site visit to each outfall. Renewal Permittees that have an existing up-to-date outfall map that includes the minimum requirements specified in Section E.9.a.(ii)(a-e) are not required to re-create the outfall map. This does not exempt Renewal Permittees with an existing outfall map from conducting the field sampling specified in Section E.9.c.

(ii) **Implementation Level** - The outfall map shall at a minimum show:

(a) The location of all outfalls[16] that are operated by the Permittee within the urbanized area, drainage areas, and land use(s) contributing to those outfalls that are operated by the Permittee, and that discharge within the Permittee's jurisdiction to a receiving water. Each mapped outfall shall be located using coordinates obtained from a global positioning system (GPS) and given an individual alphanumeric identifier, which shall be noted on the map. Photographs or an electronic database shall be utilized to provide baseline information and track operation and maintenance needs over time.

(b) The location (and name, where known to the Permittee) of all water bodies receiving direct discharges from those outfall pipes.

(c) Priority areas, including, but not limited to the following:

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[14] The Permittee shall use the Center for Watershed Protection's guide on Illicit Discharge Detection and Elimination (IDDE): A Guidance Manual for Program Development and Technical Assistance (available at www.cwp.org) or equivalent when developing an IDDE program. Guidance can also be found at: http://cfpub.epa.gov/npdes/stormwater/idde.cfm.

[15] The Permittee may utilize existing forms such as the CWP Outfall Reconnaissance Inventory/Sample Collection Field Sheet while conducting the mapping inventory and Field Sampling as specified below, in Section E.9.c.(http://cfpub.epa.gov/npdes/stormwater/idde.cfm).

[16] Submerged outfalls or other outfalls that may pose a threat to public safety and/or that are inaccessible are not required to be inventoried.

IMPLEMENTATION OF THE PLAN

APPENDIX 4 – SURVEY TOOLS & REFERENCES

SURVEYS

To comply with permit section E.7.a.(ii)(b), the municipality must perform two surveys during the permit term. As discussed in Section 2.3 of this plan the purpose of the surveys is to establish a baseline of awareness of the targeted audiences with the first survey. The second survey should be performed at the end of the permit term and measure the growth in awareness of the same audiences.

SURVEY DELIVERY

The City of Riverbank will utilize web-based survey technology (i.e. www.surveymonkey.com) to collect survey data. Survey Monkey is an easy-to-use tool for creating online surveys. It has a simple web interface, which makes it easy for nontechnical people to create surveys and export survey data. It offers a free limited account that stores 100 responses for to up to 10 questions. The "Gold" subscription ($300 per year) allows unlimited response to an unlimited number of questions. This service allows you to get responses via a web-link or e-mail. The survey can be populated with the questions based on the messages identified in Section 2.4 of the E&O Plan. The use of the web-based surveys will require some publicity to direct the public to the survey location. This publicity can be done through utility inserts, newsletters, City of Riverbank's website, or promotional materials. The publicity attempts for the survey should be diverse to draw in a wide cross section of the municipal population. The surveys will be publicized on the City's Website.

SURVEY DELIVERY

The City of Riverbank will utilize community-based events to conduct the required surveys. The City of Riverbank anticipates performing the surveys at the Cheese & Wine Festival and RiverFest Event. The City of Riverbank will target event attendees and attempt to persuade them to take the survey. The municipality may elect to utilize incentives to lure potential survey targets. These incentives can be in the form of a giveaway or a drawing for a grand prize. If possible, the giveaway should be outreach message oriented. Pet waste bags, storm water awareness coloring books, themed magnets, and pencils/pens are great ways to draw in potential survey takers.

Survey questions can be presented by paper, electronic device (i.e. tablet or laptop), verbally, or a combination approach. It is important that the demographics of the audience are considered prior to the survey to ensure predominate language groups are accommodated.

SURVEY DELIVERY

The City of Riverbank will utilize existing routine municipal community contact mechanisms (i.e. utility billing inserts, permit applications, business license renewals) to conduct, promote, and/or direct the community to the storm water survey. The City of Riverbank will target the mailer recipient or the permit applicant and attempt to persuade them to take the survey. The municipality may elect to utilize incentives to lure potential survey targets. The City of Riverbank anticipates utilizing utility billing inserts to get the message out to residents.

ANALYZING THE DATA

Now that the municipality has collected survey data, it will need to be compiled, tallied, and analyzed. Data should be exported or entered into a database program (i.e. Microsoft Excel or Access) to manage, filter, and sort the results. The most basic level of analysis is tallying the results. Tallying the results will give the municipality a quick basic understanding of the awareness of the surveyed population. For example, if 75% of those surveyed answered it was most appropriate to call 911 if they noticed someone dumping something in the storm drain, and only 5% surveyed ***correctly*** answered the municipality's storm water hotline, the analysis would tell the municipality that awareness campaigns for the local storm water hotline would be warranted.

Question #1: If you notice someone dumping something into the storm drain or obvious pollutants entering the storm drain, what should you do?	
Response	Percent of Responses
a. Call 911	75
b. Call your city's or county's storm water hotline	5
c. Wash it down the drain with lots of water	10
d. Don't worry… it will be removed from the water by the City's/County's treatment system.	10

To dig deeper in the analysis of the responses, filters can be applied based on available information collected about the survey taker (i.e. age, gender, local resident, education, and median income). Targeted groupings and messages can be developed through further filtering of the results. If filters for age, gender, and income levels were applied to the above scenario, the municipality could understand which answers trended from various groups; and, thereby, adjust the outreach focus to the group with the lower percentage level of understanding about the topic.

POOL OF SURVEY QUESTIONS

To help the municipality collect valuable data, the following pool of survey questions has been compiled to focus data collection and gauging of awareness for pollutants of concern and local water quality issues. MS4 surveys can be populated by using the questions below and/or by creating and adding your own focused questions. Select questions for each targeted category appropriate to the audience to be surveyed to populate the survey. Ideally, approximately 7 to no more than 15 questions should be selected for the survey. Verbally delivered surveys should typically be less than 10 questions to keep the survey taker's attention.

IMPLEMENTATION OF THE PLAN

[Left intentionally blank.]

Pool of Survey Questions

Where applicable, the correct answer is shown in ***bold, italicized font***.

Survey Topic	Question Possible Answers:	A	B	C	D
Respondent Background	Select Age Group	Under 18	18-29	30-55	55+
Respondent Background	Select Highest Completed Education Level	High School / GED	Some College	College Degree	Less than High School Graduate
Respondent Background	Select residence location	City/County of ____	Unincorporated County	Outside City / County	
Respondent Background	Select Primary / Preferred Language	English	Spanish	Hmong	Other (Specify): _____
Respondent Background	Select Gender	Male	Female		
Respondent Background	Select Household Income	Less than $25,000	$25,000 to $49,999	$50,000 to $99,999	$100,000 or more
Respondent Background	Check all that apply	I live in the City/County of ____	I work in the City/County of ____	I attend school in the City/County of ____	I participate in recreation activities in the City/County of ____
TMDL (Organic Enrichment & Low D.O.)	What is the best practice for grass clippings when mowing a lawn?	***Leave as mulch on the lawn or place it in a compost pile***	Blow or rake them into the curb and gutter	Blow or rake them onto your neighbor's lawn	Place them in the green waste bin or take them to the landfill/dump
TMDL (Organic Enrichment & Low D.O.)	What is the best practice for the disposal of leaves?	***Mulch flower beds or place in a compost pile***	Rake or blow them into the curb and gutter	Blow them onto your neighbor's lawn	Place them in the green waste bin or take them to the landfill/dump
TMDL (Organic Enrichment & Low D.O.)	What do fish need to survive?	Cloudy water so that predators cannot see them	Lots of nutrients from fertilizers	Heavy metals such as mercury and copper	***Dissolved oxygen***
TMDL (Organic Enrichment & Low D.O.)	Grass Clippings and leaves from residential and landscaping activities are not considered harm to local waterways.	TRUE	***FALSE***		

IMPLEMENTATION OF THE PLAN

Survey Topic	Question Possible Answers:	A	B	C	D
TMDL (Organic Enrichment & Low D.O.)	In the past 12 months, I may have used more fertilizer or applied more frequently that the label directions require.	TRUE	FALSE	I don't know.	
TMDL (Diazinon & Chlorpyrifos)	When is the best time to apply pesticides or herbicides?	Right before a rain storm	Weekly	***Only when needed and on dry days***	In the middle of the night
TMDL (Diazinon & Chlorpyrifos)	What is the best way to get rid of ants?	Buy as much ant spray as possible and use liberally	Pour diesel or gasoline on the anthill	***Spot where the ants are coming from, eliminate the food source, rinse ants away with soap and water, obstruct entrances, and use self-contained bait traps.***	Ignore them, they will go away eventually
TMDL (Diazinon & Chlorpyrifos)	At your residence, do you or a gardening service apply any of the following lawn or garden products? (Check all that apply)	Fertilizer	Weed killers/herbicides	Pesticides	Other
TMDL (Diazinon & Chlorpyrifos)	What do you do with unused or unwanted pesticides and herbicides?	Apply the contents to your yard or garden until supply is depleted	Take it to a landfill or waste transfer station	Pour it into the street gutter or down a storm drain	***Recycle at available drop-off sites***
TMDL (Diazinon & Chlorpyrifos)	In the past 12 months, I may have applied a bigger dose of insecticide or weed killer around my house than the directions say to use.	TRUE	FALSE	I don't know.	

IMPLEMENTATION OF THE PLAN

Survey Topic	Question Possible Answers:	A	B	C	D
Exotic Species	Which of these mussels are considered invasive species?	Abalone Mussels	Bicep Muscles	***Quagga & Zebra Mussels***	Calf Muscles
Exotic Species	What is an invasive species?	Native species of plants or animals which over populate the local environment.	***Any species that has been introduced to an environment where it is not native, and that has since become a nuisance through rapid spread and increase in numbers, often to the detriment of native species.***	The latest pop music boy band	The main character from the latest sci-fi thriller
Exotic Species	Which of these is not an invasive species?	Quagga Mussel	Zebra Mussel	Water Hyacinth	***River Otters***
Exotic Species	What is the best way to prevent the spread of aquatic invasive species when boating?	Clean any visible mud, plants, fish or animals from watercraft and equipment.	Drain all water, including from lower outboard unit, ballast, live-well, buckets, etc.	Dry all areas	***All of the above***
Mercury	Which of the following common household items commonly contain mercury?	Florescent lights	LCD screens	Thermometers and barometers	***All of the above***

IMPLEMENTATION OF THE PLAN

Survey Topic	Question Possible Answers:	A	B	C	D
Mercury	What is the best way to dispose of Mercury containing materials?	***Reputable E-Waste drop off locations or hazardous waste collection centers***	Throw it in the household garbage	Dump it in an empty field	Return it to the manufacturer
Mercury	How can Mercury be harmful to the environment?	It will raise and lower water temperatures	***It will remain in tissue of aquatic species and those species that consume them***	It will instantly kill waterfowl on contact	The illegally dumped light bulbs clog waterways and promote bacteria growth
Pathogens	Where and how do you dispose of pet waste?	Bag/garbage	Compost it or place it in a yard waste can	Leave it	I do not own a pet
Pathogens	What is the best way to dispose of cooking oils and grease?	Pour it down the sink	***Pour in a container and place it in the household garbage can***	Dump into the nearest storm drain	Take it to a reputable recycling center (i.e. County Household Hazardous Waste Facilities)
Pathogens	How is pet waste harmful to the environment?	Someone may step on it	***Pet waste carries bacteria, viruses, and parasites that can make people, especially children, sick when carried by storm water into local waterways***	It creates emissions which effect air quality	It plugs storm drain inlets leading to localized flooding
Pathogens	What is a Sanitary Sewer Overflow?	Storm water overwhelms the storm drains and backs up into streets and roadways	Spilling oils and greases onto surfaces when dumping into the municipality's sewer system.	***Unintentional discharge of raw sewage from municipal sanitary sewers***	When a sink back up due to a clog

Survey Topic	Question Possible Answers:	A	B	C	D
Pathogens	Which of the following should not be sent down a sanitary sewer drain?	Used water	Human body waste	Toilet paper	***Cooking oils, fats, and greases***
Toxic Chemicals	How can Dioxins be harmful to the environment?	It will raise and lower water temperatures	***It will remain in tissue of aquatic species and those species that consume them***	They will instantly kill waterfowl on contact	Dumped dioxin materials in waterways and promote algae growth
Toxic Chemicals	Major contributors of dioxin to the environment include which of the following?	Incineration of Municipal Solid Waste	Forest Fires	Residential Wood Burning	***All of the above***
Toxic Chemicals	What are Dioxins and Furans?	Pesticides	Fertilizers	***Toxic Chemicals***	Threatened Aquatic Species
Illicit Discharge	Can you drain water from your pool into a storm drain?	***Yes, after no residual chlorine is detected***	Yes, at any time	Yes, but only when it is raining	No, Never
Illicit Discharge	Wash water from mop buckets or carpet cleaners can be disposed of best by…	Pouring the wash water out on the street.	Throwing it over your fence onto your neighbor's yard.	***Pouring down a sink or toilet.***	Pouring it down a storm drain.
Illicit Discharge	Where is the best place for water-based paint brushes to be washed?	***At an inside sink.***	Down your driveway.	In the local river.	On the front lawn.
Illicit Discharge	Typically what is the only thing allowed to go down a storm drain?	Wastewater	Pool water as long as it has chlorine	Surface wash down water	***Storm Water***

IMPLEMENTATION OF THE PLAN

Survey Topic	Question Possible Answers:	A	B	C	D
Illicit Discharge	Urban storm water runoff flows to which of the following?	A storm water treatment facility.	Into the sanitary sewer system.	***Into the municipal storm drainage system which discharges to local water bodies or irrigation districts.***	Nowhere, it evaporates
Illicit Discharge	Do you do any of your own vehicle repairs at your residence?	I do not own a vehicle.	Yes	No	
Illicit Discharge	Where do you primarily wash your vehicles?	A commercial car wash	In your driveway or the street	At a charity car wash	On your lawn
Illicit Discharge	How do you dispose of materials such as used motor oil, old paint thinners, or similar items?	Place it in household garbage.	Take it to a landfill.	Pour it into the street gutter or down a storm drain.	***Recycle at the County Household Hazardous Waste or other approved drop-off sites.***
Illicit Discharge	Stains from vehicle fluids can be cleaned by…	Hosing down the surface until the stain is no longer present.	Scrubbing with an environmentally friendly soap prior to washing down the surface.	***Using a dry absorbent like kitty litter to absorb the fluid then properly disposing of the spent absorbent.***	Wait for the next rain to naturally wash the stain off the surface.
Illicit Discharge	If you notice someone dumping something into the storm drain or obvious pollutants entering the storm drain, what should you do?	Mind your own business	***Call your city's or county's storm water hotline or call 911***	Wash it down the drain with lots of water	Don't worry … it will be removed from the water by the City's/County's treatment system.
Illicit Discharge	Have you heard of any of the following programs or activities? (Check all that apply)	Coastal Clean-up Day	County Household Hazardous Waste Collection Center		
Illicit Discharge	Have you participated in a clean-up event in the City of Riverbank?	Yes/In the last 12 months	Yes/In the past	No/Never	No/But I would like to get involved

IMPLEMENTATION OF THE PLAN

Survey Topic	Question Possible Answers:	A	B	C	D
Trash	It is okay to toss cigarette butts on the ground because they are biodegradable.	TRUE	***FALSE***		
Trash	Trash is separated from storm water runoff before it reaches the local waterways.	TRUE	***FALSE***		
Trash	Trash cans and bins should be…	Kept open for easy access.	***Kept in the closed position to ensure trash is not carried off by the wind and that storm water stays out of it.***	Washed out frequently.	Turned upside down to dry out after a storm.
Trash	Where should unwanted household items and trash be taken?	To an open field.	To a private business' dumpster.	***To an e-waste recycler, municipal dump or other recycling center.***	Left curbside for the trash service to pick up.

IMPLEMENTATION OF THE PLAN

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IMPLEMENTATION OF THE PLAN

APPENDIX 5 – INVENTORY OF EXISTING RESOURCES

EXISTING ESTABLISHED PROGRAMS AND RELATIONSHIPS

The municipality may not need to blaze new trails for some of the E&O efforts. In fact, all municipalities should be able to leverage elements of existing programs or resources to incorporate into their E&O efforts. Believe it or not, your municipality may already be doing education and outreach which has storm water quality benefits. Many programs exist with messages that are targeted towards the public for issues like waste management, watersheds awareness, water conservation, green waste, and agriculture. Many of these messages are parallel to storm water education and awareness topics. The following is a list of resources grouped by water quality concerns that municipalities may be able to tap into for existing resources or site as sources:

Pesticides:

- County Agriculture Commissioner's Office - Proper disposal messages and options and illegal dumping awareness messages.

  Merced County Municipalities:
  http://www.co.merced.ca.us/index.aspx?nid=58

  San Joaquin County Municipalities:
  http://www.sjgov.org/agcomm/

  Shasta County Municipalities:
  http://www.co.shasta.ca.us/index/ag_index.aspx

  Stanislaus County Municipalities:
  http://www.stanag.org/

  Yolo County Municipalities:
  http://www.yolocounty.org/general-government/general-government-departments/agriculture-cooperative-extension/agriculture-and-weights-measures

  Yuba County Municipalities:
  http://www.co.yuba.ca.us/departments/ag/

IMPLEMENTATION OF THE PLAN

- UC Master Gardener Programs (By County) - Messages and information for pesticide application methods, protocols, and tips.
  http://mg.ucanr.edu/Become_a_Master_Gardener/California_Master_Garden_Counties_/

- Got Ants? Get S.E.R.I.O.U.S.! - Got Ants is a collaboration of public agencies, educational institutions, pest professionals, and nonprofits working to promote environmentally sound ant management and to protect water quality. The Got Ants? website provides excellent tips, and ideas for switching from spraying pesticides to less toxic and more effective means for managing ant problems.
  http://www.gotantsgetserious.org/

- Our Water – Our World – A website designed to help consumers with home and garden pest by providing product information and guidance for non-toxic alternatives.
  http://ourwaterourworld.org/

- Safe Lawns – Information, links, tips, and articles for pesticide alternatives for lawn care and grounds maintenance.
  http://www.safelawns.org/blog/

Exotic Species:

- Quagga and Zebra Mussels (California Department of Fish and Wildlife) – Maps, educational materials, and guidance documents
  https://www.wildlife.ca.gov/Conservation/Invasives/Quagga-Mussels

- National Invasive Species Information Center (United States Department of Agriculture) – Information, links, and resources for California's invasive species.
  Water Hyacinth:
  http://www.invasivespeciesinfo.gov/aquatics/waterhyacinth.shtml
  Zebra Mussel:
  http://www.invasivespeciesinfo.gov/aquatics/zebramussel.shtml
  Quagga Mussel:
  http://www.invasivespeciesinfo.gov/aquatics/quagga.shtml

- Division of Boating and Waterways (California State Parks) – Information, links, and resources for California's invasive species.
  Water Hyacinth:
  http://www.dbw.ca.gov/BoaterInfo/WaterHyacinth.aspx
  Quagga & Zebra Mussels:
  http://www.dbw.ca.gov/BoaterInfo/QuaggaLoc.aspx

IMPLEMENTATION OF THE PLAN

Organic Enrichment / Low Dissolved Oxygen:

- Composting for Facilities (US EPA) – Compost application information for compost facilities, businesses, industries, and local governments.
  http://www.epa.gov/composting/

- CalRecycle – Tips, links and resources for home gardening, compost and mulch, and grasscycling.
  http://www.calrecycle.ca.gov/PublicEd/default.htm

- UC Master Gardener Programs (By County) - Messages and information for Integrated Pest Management tips, techniques, and resources.
  http://www.ipm.ucdavis.edu/index.html

Mercury:

- California Department of Toxic Substances Control – Electronic Hazardous Waste (E-Waste)
  https://www.dtsc.ca.gov/HazardousWaste/EWaste/

- California Product Stewardship Council – Information, links, and resources for mercury thermostat recycling.
  http://calpsc.org/products/thermostats/

- Be Mercury Free (Sacramento Regional County Sanitation District) – Information, links and resources for safely disposing of mercury and preventing mercury contamination.
  http://www.regionalsan.com/be-mercury-free

Illicit Discharges:

- Association of California Water Agencies' Save Our Water program – Information, links, and resources related to water conservation.
  http://www.saveourh2o.org/

Sanitary Sewer Overflows:

- USEPA Sanitary Sewer Overflows and Peak Flows – Information, links, and reference material for SSOs.
  http://cfpub.epa.gov/npdes/docs.cfm?document_type_id=3&view

=Factsheets%20and%20Outreach%20Materials&program_id=4&sort=name

Trash:

- CalRecycle - Information, links, resources to reduce, reuse, and recycle.
  http://www.calrecycle.ca.gov/Recycle/

- Keep America Beautiful – Activism, information, links, and resources to transform public spaces into beautiful places.
  http://www.kab.org

- Bag It (Documentary Film) – Activism, school projects, information, links, and resources to reduce plastics from the environment.
  http://www.bagitmovie.com/index.html

- Waste Management – Recycling information, K-12 education, information, links, and resources about waste management for home, industry, construction, and business.
  http://www.wm.com/thinkgreen/index.jsp

- USEPA – Tools and resources for waste management, waste reduction, and recycling.
  http://epa.gov/epawaste/climate/cc_wste_resrcs.htm

- Institute for Local Government (ILG) – Sample ordinances, flyers, and many other resources for waste management, waste reduction, and recycling.
  http://www.ca-ilg.org/commercial-recycling-resource-center

- Earth 911 – The website provides a search feature that informs the searcher how to properly dispose of various types of materials (i.e. automotive fluids, batteries, electronics, and household items).
  http://search.earth911.com/

- County Household Hazardous Waste Facilities (HHW) – Most counties have a HHW facility where the public can drop off household and in some cases small business hazardous materials. These County HHW facilities have promotional and educational

materials for proper disposal of items such as E-Waste, oils, pesticides, and chemicals.
http://www.mercedrecycles.com/hhw.html
http://www.sjgov.org/solidwaste/HHW%20facility%20home.htm
http://www.stancounty.com/ER/household-hazardous-waste.shtm
http://www.yolocounty.org/home/showdocument?id=2767
http://www.yubasutterrecycles.com/hhw.html

Water Conservation/Drought:

- DWR - Information, links, and educational material regarding California's drought
  http://www.water.ca.gov/waterconditions/publications.cfm

- Save Our Water - Information, links, tips, and resources on how to save water.
  http://saveourwater.com/

- California Urban Water Conservation Council (CUWCC) - Activism, BMP cut sheets, and educational resources on how to save water.
  http://www.cuwcc.org/

- Be Water Wise - Information, links, tips, and educational resources on how to save water.
  http://www.bewaterwise.com/

Environmental Education:

- North American Association for Environmental Education/ PBS Broadcasting – Links to many educational resources and tools for environmental topics.
  http://www.naaee.net/publications

- Project WET – WET stands for Water Education for Teachers. The Project WET's website provides curriculum, material, and resources for classroom water education.
  http://www.projectwet.org/

- Project Learning Tree (PLT) – PLT is an environmental education program designed for teachers and other educators, parents, and community leaders working with youth from preschool through grade 12. PLT provides curriculum materials and professional development for educators.

https://www.plt.org/

- Education and the Environment Initiative (EEI) - EEI is a free, state-sponsored K-12 curriculum that teaches science and history-social science standards through an environmental lens. The EEI consists of state-adopted and approved units that allow educators to substitute chapters for portions of textbooks they are currently using.
  http://californiaeei.org/

- Green Schools Initiative – This program is designed to be adopted by schools and emphasizes eliminating toxics, using resources sustainably, creating green schoolyards and buildings, serving healthy food, and teaching environmental literacy and stewardship. The website provides resources for activism, green resources, and educational resources.
  http://www.greenschools.net/

INVENTORY OF EXISTING E&O MATERIALS AND RESOURCES

Many of the educational materials and resources your municipality may need to use for education and outreach efforts may already exist. Before spending time and resources creating new materials, spend some time researching what already exists. Even if the material's message is not hitting the exact target, it may be able to be edited or serve as a creative spring board for the resource you need to develop.

Internal Resources

If your municipality is a renewal Permittee, you probably have performed some level of public storm water education and outreach. Review what resources have been previously developed. At the very least, these resources may serve as a good starting point for further message development. If your municipality is new to the permit, there are still potentially resources available within the municipal departments.

Don't limit your search for resources to just the municipality's storm water department. Search other internal departments (i.e. solid waste division, wastewater, parks and recreation) for materials and resources. The municipality should also consider tapping into the local county's various departments for potential education and outreach materials. The available materials may not be specifically geared toward storm water awareness and education, however many of the messages are parallel to storm water pollution prevention messages.

The following table can be used to assist the municipality in capturing an inventory of what existing materials or resources are available.

IMPLEMENTATION OF THE PLAN

Targeted Pollutant of Concern	Messages	Inventory of Existing Materials
Pesticides	• Proper application of pesticides, herbicides and fertilizers. • Less toxic alternatives (IPM) • Proper storage and disposal	*Existing resources that promote these messages:* **Brochures, Website**
Exotic Species	• Awareness of local invasive species (i.e. Quagga/Zebra Mussels, Water Hyacinth)	*Existing resources that promote these messages:* **Brochures, Website**
Organic Enrichment / Low Dissolved Oxygen	• Home gardening tips • Composting / grasscycling • Green waste programs	*Existing resources that promote these messages:* **Brochures, Website**
Mercury	• E Waste Recycling • Replacing Mercury Devices • Less Toxic Alternatives • Safe consumption guidelines for fish	*Existing resources that promote these messages:* **Brochures, Website**
Pathogens	• Pet waste • Fats, Oils, & Greases (F.O.G.)	*Existing resources that promote these messages:* **Brochures, Website**
Toxic Chemicals	• Dioxins, Furans, and PCBs • Less Toxic Alternatives • Illegal Dumping	*Existing resources that promote these messages:* **Brochures, Website**
Illicit Discharges	• Only Rain Down the Drain • Illegal Dumping • Waste Recycling	*Existing resources that promote these messages:* **Brochures, Website**
Sanitary Sewer Overflows	• Reporting SSOs • Proper management of Fats, Oils, & Grease	*Existing resources that promote these messages:* **Brochures, Website**
Trash	• Illegal Dumping • Recycling • Waste Management	*Existing resources that promote these messages:* **Brochures, Website**

IMPLEMENTATION OF THE PLAN

Outside Resources

Municipalities should also consider outside sources for resources and materials. Consider utilizing storm water focus groups. There are excellent sources of information, training, and resources available through these types of groups. Below are some examples of outside resources that may have information or materials that would be beneficial to the municipality.

California Stormwater Quality Association (CASQA):

CASQA is a professional member association dedicated to the advancement of storm water quality management through collaboration, education, implementation guidance, regulatory review, and scientific assessment. CASQA offers members access to excellent resources such as BMP handbooks and guidance documents. These resources are widely recognized as industry standards. https://www.casqa.org/

Local Storm Water Partnership Groups:

Many municipalities already participate in a local partnership group with other Phase 1 and 2 MS4s. These groups often promote, sponsor, or organize collaborative E&O activities and public participation events. Local groups include the following:

- San Joaquin Valley Stormwater Quality Partnership (http://sanjoaquinvalleystormwaterqualitypartnership.com/);
- The Merced MS4 Partnership;
- The Yolo MS4 Partnership; and
- The Sacramento Stormwater Quality Partnership (www.beriverfriendly.net)

Storm Water Awareness Week (SWAW):

The key component of the high-quality education event, S*torm Water Awareness Week*, is it is *free*. SWAW strictly prohibits any money changing hands during this event. There is no cost to attend any of the workshops, and there is no charge for presenters to host their workshops. SWAW provides many handouts and publicity materials for free. http://stormwaterawareness.org/

School Resources

The permit requires that MS4s provide (within their jurisdiction) independent, parochial, and public schools with materials to effectively educate school-age children about storm water runoff and how they can help protect water quality habitat in their local watershed(s). To meet this requirement, we suggest that municipalities create a **resource packet** and provide it to school administrators and/or teachers (especially

science teachers). The packet will provide the schools with information about what is available for storm water and watershed education. Detailed information about the California EEI program and other government educational resources will be described with information on how teachers or school administrators can access these resources. The packet should also include samples of educational materials that the municipality is making available for their use and/or distribution to the students. An order form can be included in the packet to request supplies that they wish to use.

The following is a partial list of resources that you may be able to utilize in your inventory of educational materials to school-age children. Other resources are listed on page 5 of Appendix 5 of this E&O Plan.

California Education and the Environment Initiative (EEI):
The Education and the Environment Initiative (EEI) is a free, state-sponsored K-12 curriculum that teaches science and history-social science standards through an environmental lens. The EEI consists of state-adopted and approved units that allow educators to substitute chapters for portions of textbooks they are currently using. http://californiaeei.org/

Department of Water Resources (DWR):
DWR has a wealth of educational outreach materials for topics like drought, environment, and water quality available to municipalities. The municipality can browse DWR's online catalog of bookmarks, stickers, brochures, newsletters, posters, workbooks, and more. These materials are available by request, or by download. http://www.water.ca.gov/publications/browse.cfm?display=type&pub=120

California Coastal Commission:
The California Coastal Commission which is the sponsoring agency for the California Coastal Cleanup Day, maintains a list of resources for California Educators which includes an elementary grade-oriented science activity guide, "*Waves, Wetlands, and Watersheds*"; a high school-oriented activity guide, "*Our Wetlands, Our World*"; curriculum; classroom and schoolyard activities; and ideas for schoolyard cleanup programs. These resources can be accessed at: http://www.coastal.ca.gov/publiced/directory/educate.html .

INVENTORY OF EXISTING E&O AND PUBLIC PARTICIPATION EVENTS

Most municipalities host and participate in several public events each year. These municipal-sponsored community events (i.e. farmers markets, county fairs, street fairs, cleanup events, holiday-oriented community events, and town festivities) serve as great opportunities to interface with the public and can be leveraged for storm water education and outreach purposes. Some events (i.e. Coastal Cleanup Day, Earth Day, etc.) serve as great catalyst for targeted awareness campaigns or solicitation of public participation. By creating an inventory of these community events it will help identify opportunities that the municipality will have to interact with the public.

IMPLEMENTATION OF THE PLAN

Inventory of Municipal-Sponsored Community Events
Wine & Cheese Festival
Riverfest
Farmer's Market

INVENTORY OF EXISTING PUBLIC OUTREACH MECHANISMS

How does your municipality communicate with the public? You probably would be surprised on how many communication mechanisms already exist. These communication methods will be key in getting the E&O program messages out to the public. Your municipality may utilize some or many of these communication methods:

- Municipal storm water website
- Utility mailers
- Newsletters
- Social media
- Municipal owned billboards, kiosks, and electronic signage
- Multimedia (radio, cable TV, print / newspaper)
- Hotlines and reporting methods
- Exhibits at fairs or festivals
- Permit applications and renewals

Existing Outreach Mechanisms	Description, Capabilities and Message Targets
MS4 Website	Website link to California Regional Water Quality Control Board (RWQCB)
Utility Mailers	Residents and Commercial businesses
Newsletters	Residents and Commercial businesses
Social Media	Website: Residents and Commercial businesses
Municipal owned billboards, kiosks, and electronic signage	City Billboards: Residents and Commercial businesses

IMPLEMENTATION OF THE PLAN

Existing Outreach Mechanisms	Description, Capabilities and Message Targets
Multimedia (radio, cable TV, print / newspaper)	Channel 2: Residents and Commercial businesses
Hotlines and reporting methods	City Hotline: Residents and Commercial businesses
Permit applications and renewals	Website & information provided at building counter: Residents and Commercial businesses
Exhibits at fairs or festivals	Cheese & Wine, Riverfest, Farmer's Market: Residents

Existing Public Participation Opportunities	Description of Opportunities
Public BMP Implementation	Website & Outreach
Public Access to Storm Water Program Information	Website & Outreach
Other Public Participation / Volunteer Opportunities	Website & Outreach

COLLABORATION AND RESOURCE SHARING

Storm Water Partnerships

Collaboration and resource sharing can be a terrific way to avoid the burden of sole source development time and costs. By collaborating with similar municipalities, costs can be greatly reduced for material development. Resources can potentially be created and dispatched with more efficiency and potentially more effectiveness. The following are some ways to consider collaboration and resource sharing for your municipality's storm water program:

Joint Campaigns: Most regional phase II municipalities share the same education and outreach requirements. So with each municipality working towards crafting messages and awareness campaigns, it may make sense to pool resources and in a regional effort. Radio/TV/Print ads, billboards, fair or festival booths, specific issue related awareness campaign websites or social media pages can be expensive propositions to develop and maintain. However, if municipalities teamed up on these types of items the cost for development and maintenance significantly decreases.

Barter: As the saying goes, "many hands make light work". The same concept is true if the municipalities organized efforts with outreach materials. If you look at the list of topics for public outreach, you would see the need for dozens of educational and awareness-raising outreach messages and materials. With some coordination, the topics could be divided up among participating municipalities for material development.

The municipalities would then perform an exchange of the developed resources exponentially increasing their catalog of outreach materials. Editable versions of the developed materials would be best, so that each municipality could customize their own version.

Partnership Groups: Storm water partnership groups are great springboards for collaboration. By participating with a storm water partnership group with other municipality's joint campaigns, materials bartering, idea and resource sharing have a place to happen.

Integrated Regional Water Management Plans & Other Watershed-level Planning Efforts

The Phase II MS4 Permit requires in Section E.8 that municipalities actively engage in the local Integrated Regional Water Management Plan (IRWMP) or other watershed-level planning effort. The following is a list of some of the existing plans and planning groups:

Merced County:

- Merced Integrated Regional Water Management : http://mercedirwmp.org/

San Joaquin County:

- Eastern San Joaquin County Groundwater Basin Authority: http://www.gbawater.org/IRWMP
- Mokelumne / Amador / Calaveras IRWM: http://www.sierrawaterworkgroup.org/mac-irwm.html

Shasta County:

- AB 3030 Groundwater Management Plan for the Redding Groundwater Basin: http://www.co.shasta.ca.us/index/pw_index/engineering/water_agency/ab3030_plan.aspx
- Redding Basin Water Resources Management Plan: http://www.co.shasta.ca.us/index/pw_index/engineering/water_agency/rbwrmp.aspx
- Northern Sacramento Valley IRWMP: http://nsvwaterplan.org/

Stanislaus County:

In April 1994, six agencies covering the Modesto Groundwater Sub-basin formed the Stanislaus and Tuolumne Rivers Groundwater Basin Association to provide a forum for coordinated planning and management of the sub-basin. These six agencies are:

- The City of Modesto
- The Modesto Irrigation District (MID)
- The City of Oakdale
- The Oakdale Irrigation District (OID)
- The City of Riverbank
- Stanislaus County

Other management programs Stanislaus County municipalities may be involved with include:

- Groundwater Management Action Plan
- Modesto Groundwater Management Plan

IMPLEMENTATION OF THE PLAN

- Turlock Groundwater Management Plan
- West Side Valley Groundwater Management Plan

More information can be found at: www.stancounty.com/er/groundwater-resources.shtm

Stanislaus County MS4s may also want to review the following:

- East Stanislaus Integrated Regional Water Management (IRWM) - www.eaststanirwm.org/
- California Irrigation Management Information System (CIMIS) - http://tid.org/water/water-management/california-irrigation-management-information-system-cimis
- Agricultural Water Management Plan - http://tid.org/water/water-management/agricultural-water-management-plan
- TID Groundwater Management Plan / Turlock Groundwater Basin Association (TGBA) - http://tid.org/water/water-management/groundwater-management
- Regional Flood Management / Central Valley Flood Protection Plan (CVFPP) - http://www.stancounty.com/publicworks/division/development/rfm-plan.shtml

Yolo County:

- Water Resources Association of Yolo County: www.yolowra.org/irwmp.html

Yuba County:

- Sierra Water Workgroup / Yuba County IRWMP: http://www.sierrawaterworkgroup.org/yuba-county-irwm.html

IMPLEMENTATION OF THE PLAN

APPENDIX 6 – THE E&O ACTION PLAN

IMPLEMENTATION OF THE PLAN

City of Riverbank E&O Action Plan

Education & Outreach Tasks:

E&O Tasks from E.7.a.(ii)	Implementation Details	Person & Department Responsible for the Implementation of the Task	Schedule for Implementation (Compliance Year)
Task 1 - *Develop and implement a public education strategy that establishes education tasks based on water quality problems, target audiences, and anticipated task effectiveness. The strategy must include identification of who is responsible for implementing specific tasks and a schedule for task implementation. The strategy must demonstrate how specific high priority storm water quality issues in the community or local pollutants of concern are addressed.*	The City of Riverbank's Comprehensive E&O Plan meets the requirements of Task 1 in that it identifies in Section 2 the water quality problems and target audiences. The Plan identifies in Sections 2.4 and 4.4 how the City of Riverbank will measure and evaluate the effectiveness of its E&O program and the strategy used to prioritize water quality issues. In this E&O Action Plan, the person responsible for implementing each task is identified and an implementation schedule is provided.	Development Services	Year 2
Task 2 - *Implement surveys at least twice during the permit term to gauge the level of awareness in target audiences and effectiveness of education tasks.*	The City sent out Storm Water Questionnaires in our October 2015 utility billing mailers. The next survey will be mailed with the utility bills in August and a link to the Questionnaire will be provided on the City's website.	Development Services	Year 2
Task 3 - *Develop and convey a specific storm water message that focuses on the following:* *1) Local pollutants of concern* *2) Target audience* *3) Regional water quality issues*	In Section 2 of the Comprehensive E&O Plan, the City of Riverbank walks through the process of identifying these three items and the related messages. These messages are summarized and prioritized in Table 13 of the E&O Plan.	Development Services	Year 2
Task 4 - *Develop and disseminate appropriate educational materials to target audiences and translate into applicable languages when appropriate (e.g. the materials can utilize various media such as printed materials, billboard and mass transit advertisements, signage at select locations, stenciling at storm drain inlets, radio advertisements, television advertisements, and websites).*	The City will purchase brochures for new resident packets and handouts at community events. The City's website will have a page strictly for storm water that will contain storm water information and links to various storm water websites.	Development Services	Develop new materials in Year 2 Disseminate information Years 2 - 5

IMPLEMENTATION OF THE PLAN

E&O Tasks from E.7.a.(ii)	Implementation Details	Person & Department Responsible for the Implementation of the Task	Schedule for Implementation (Compliance Year)
Task 5 - *Utilize public input (e.g., the opportunity for public comment, or public meetings) in the development of the program.*	City staff will present the E & O Plan at a City Council meeting, which will be televised and available to listen to on the City's website – Channel 2	Development Services	Obtain initial input in Year 2
Task 6 - *Distribute the educational materials, using whichever methods and procedures determined appropriate during development of the public education strategy.*	The City will purchase brochures for new resident packets and handouts at community events. The City's website will have a page strictly for storm water that will contain storm water information and links to various storm water websites.	Development Services	Years 2 - 5
Task 7 - *Convey messages to explain the benefits of water-efficient and storm water-friendly landscaping, using existing information if available.*	The City is in the process of revamping our website to include pages dedicated to storm water and water conservation. There will be information and links to helpful websites. The City also is in the process of hiring a water conservation officer to spread the word about water conservation to the residents and businesses in Riverbank.	Development Services	Years 2 - 5
Task 8 - *Develop and convey messages specific to reducing illicit discharges with information about how the public can report incidents to the appropriate authorities. The Permittee must promote, publicize, and facilitate public reporting of illicit discharges or water quality impacts associated with discharges into or from MS4s through a central contact point, including phone numbers for complaints and spill reporting, and publicize to both internal Permittee staff and the public. If 911 is selected, the Permittee must also create, maintain, and publicize a staffed, non-emergency phone number with voicemail, which is checked daily;*	The City currently has a hotline that residents and businesses can call and report illicit discharges and water wasting. This information is also available on the City's website. The City has also updated our Storm Water Management and Discharge Control Ordinance and a Spill Plan.	Development Services	Spill Plan was developed in Year 1 Develop educational materials in Year 2 Disseminate information and materials Years 2 – 5

IMPLEMENTATION OF THE PLAN

E&O Tasks from E.7.a.(ii)	Implementation Details	Person & Department Responsible for the Implementation of the Task	Schedule for Implementation (Compliance Year)
Task 9 - *Develop and convey messages specific to proper application of pesticides, herbicides, and fertilizers*	The City will purchase brochures and education information that will be available for contractors, landscape maintenance personnel and residents. The City will also have information on the website's storm water page with links to websites and information.	Development Services	Develop educational materials in Year 2 Disseminate information and materials Years 2 – 5
Task 10 - *Within the Permittee's jurisdiction, provide independent, parochial, and public schools with materials to effectively educate school –age children about storm water runoff and how they can help protect water quality habitat in their local watershed(s).*	The City has made a list of all the elementary schools in Riverbank and the contact information for each of the schools. The City in Year 3 will develop and compile educational materials to these schools to share with their students about storm water runoff and how they can help protect water quality habitat. Depending on the grade education materials will consist of coloring books and activity books along with access to DVD's.	Development Services	Year 2 – In Appendix 7 of the E&O Plan, compile list of schools to receive the educational materials along with the contact information for each school. Year 3 – Develop, procure, and/or compile educational materials resource packet to be supplied to the schools listed in Appendix 7. Years 4 & 5 – Distribute the educational materials to the schools.
Task 11 - *Develop (or coordinate with existing, effective programs) and convey messages specific to reducing discharges from organized car washes, mobile cleaning and pressure washing operations, and landscape irrigation.*	The City will develop a flyer detailing the requirements for organized car washes, mobile cleaning, pressure washing operations, and landscape irrigation. These flyers will be available at City offices and on our website.	Development Services	Develop educational materials in Year 2 Disseminate information and materials Years 2 – 5
Task 12 - *Conduct storm water-friendly education for organized car wash participants and provide information pertaining to car wash discharge reduction.*	The City will develop a flyer detailing the requirements for organized car washes and information pertaining to car wash discharge reduction. These flyers will be available at City offices and on our website.	Development Services	Develop educational materials in Year 2 Disseminate information and materials Years 2 – 5

E&O Tasks from E.7.a.(ii)	Implementation Details	Person & Department Responsible for the Implementation of the Task	Schedule for Implementation (Compliance Year)
Task 13 - Develop and convey messages specific to mobile cleaning and pressure wash businesses.	The City will develop a flyer detailing the requirements for mobile cleaning and pressure washing operations. These flyers will be available at City offices and on our website.	Development Services	Develop educational materials in Year 2 Disseminate information and materials Years 2 – 5

Public Involvement & Participation Tasks:

Public Participation Tasks from E.8.(ii)	Implementation Details	Person & Department Responsible for the Implementation of the Task	Schedule for Implementation (Compliance Year)
Task 1 - *Develop a public involvement and participation strategy that establishes who is responsible for specific tasks and goals.*	The City of Riverbank's Comprehensive E&O Plan meets the requirements of Task 1 in that in Section 2.3.1 of this Plan and Table 11 it identifies the methods that the City of Riverbank will use to solicit and utilize public input in the development of the E&O program and public involvement and participation strategy.	Development Services	Year 2
Task 2 - *Consider development of a citizen advisory group (either a stand-alone group or utilize an existing group or process). The advisory group may consist of a balanced representation of all affected parties, including residents, business owners, and environmental organizations in the MS4 service area and/or affected watershed. The Permittee may invite the citizen advisory group to participate in the development and implementation of all parts of the community's storm water program.*	When interested parties have been identified, the City of Riverbank will take the next step to form a citizen advisory group by inviting them to an initial meeting to scope the role and involvement of the committee in the storm water program implementation.	Development Services	Year 3

IMPLEMENTATION OF THE PLAN

Public Participation Tasks from E.8.(ii)	Implementation Details	Person & Department Responsible for the Implementation of the Task	Schedule for Implementation (Compliance Year)
Task 3 - *Create opportunities for citizens to participate in the implementation of BMPs through sponsoring activities (e.g., stream/beach/lake clean-ups, storm drain stenciling, volunteer monitoring and educational activities).*	Appendix 5 provides an inventory of existing public involvement opportunities in which interested citizens can become involved. The City would like to implement a storm drain marker program where volunteers can pick up packets containing a map and storm drain markers along with instructions on how to install the markers.	Development Services	Year 3
Task 4 - *Ensure the public can easily find information about the Permittee's storm water program.*	Information about the City of Riverbank's storm water program can be found online at www.riverbank.org or they can call (209) 863-7127 to request information or to speak to a program representative.	Development Services	Storm water website on-line as of May 2015 - Site is updated as new information or links are received.
Task 5 - *Actively engage in the Permittee's Integrated Regional Water Management Plan (IRWMP) or other watershed-level planning effort.*	San Joaquin Valley Stormwater Quality Partnership www.sjvswqp.org	Development Services	City has been attending meetings and a member of this partnership since 2013. Outreach & Education Collaboration Partnership since 6/2014.

APPENDIX 7 – LIST OF SCHOOLS

List of Schools within the Phase II MS4 Permit Boundary of the City of Riverbank

School Name	Grade Levels	Public or Private?	Contact Information	Schedule for Providing Educational Materials (Compliance Year)
Adelante High School	9-12	Public	Ms. Young (209) 869-2383	Year 3
California Avenue ES	K-6	Public	Kathy Briggs (209) 869-2597	Year 3
Cardoza Middle School	7-8	Pubic	Kevin Bizzini (209) 869-2591	Year 3
Mesa Verde ES	K-6	Public	Laurie Sacknitz (209) 869-7320	Year 3
Riverbank High School	9-12	Public	Sean Richey (209) 869-1891	Year 3
Riverbank Language Academy	K-8	Charter	Vanessa Rojas (209) 869-8093	Year 3
Crossroads ES	K-6	Public	Laura Granger (209) 869-2100	Year 3

APPENDIX 8 – LIST OF COLLABORATING MUNICIPALITIES

Collaborating Phase II MS4s:

Cities

City of Atwater

City of Ceres

City of Escalon

City of Lathrop

City of Lodi

City of Merced

City of Oakdale

City of Patterson

City of Ripon

City of Riverbank

City of Turlock

City of West Sacramento

Counties

Merced County

San Joaquin County (Phase II Portion)

Stanislaus County

Yuba County